

REPORT, RETURNS AND STATISTICS
OF THE
INLAND REVENUES
OF THE
DOMINION OF CANADA

FOR THE FISCAL YEAR ENDED MARCH 31

1908

PART III
ADULTERATION OF FOOD

PRINTED BY ORDER OF PARLIAMENT



OTTAWA

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REPORT
OF THE
DEPUTY MINISTER OF INLAND REVENUE.

INSPECTION OF FOODS, DRUGS AND FERTILIZERS

To the Hon. WM. TEMPLEMAN,
Minister of Inland Revenue.

SIR,—I have the honour to submit herewith the reports of the Official Analysts of the Dominion for the year ending March 31, 1908.

The following is a summary statement of the number of samples analysed by the District Analysts for the period mentioned.

Description.	Genuine.	Doubtful.	Adulterated	Total.
Fertilizers	80	4	1	85
Milk	92	18	40	150
	172	22	41	235

The following statement shows the work done by the Chief Analyst and staff at Ottawa, for the year ending March 31, 1908.

Description.	Genuine.	Doubtful.	Adulterated.	Sold as Compound.	Total.
Spirituous Liquors.....	68				68
Almond Extracts.....	62	3			65
Ground Ginger.....	29	1			30
Ground Cinnamon.....	33				33
Fertilizers as sold.....	80	24	3		107
Maple Sugar	185	10	57	5	257
Maple Syrup	185	2	20	37	244
Milk	282	3	58		343
Chloral Hydrate.....	129				129
Amonium Bromide.....	128		2		130
Cream of Tartar	21	38	71		130
Condensed Milk	142				142
Strained Honey.....	219	4	16	14	253
Bismuth Subnitrate.....	55				55
Potass. Bromid.....	57				57
Phenacetin.....	84				84
Lard.....	129	7	2	2	140
Honey	135	3	2	1	141
Canned Salmon	90				90
Well-waters					128
					2,626

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In addition to the above, 576 samples of miscellaneous character (detailed in the Report of the Chief Analyst) have been analysed, making the total number 3,202 samples, as against 2,201 samples for the preceding nine months, constituting the fiscal year 1906-7. It is to be remembered that, owing to the death of the Chief Analyst, a vacancy on the laboratory staff existed throughout the period 1907-8, but notwithstanding this fact the number of samples examined was relatively greater than during the preceding fiscal period.

The appointment of two assistants has placed the staff of the Chief Analyst on a fairly well equipped working basis, and even better results may be looked for in the future.

Reference has been made in previous reports as to the desirability of establishing standards of purity for food, but notwithstanding the consideration given by the Chief Analyst to this subject, he does not as yet feel warranted in making definite recommendations.

I have the honour to be, sir,
Your obedient servant,

W. J. GERALD,
Deputy Minister.

INLAND REVENUE DEPARTMENT
OTTAWA December 1, 1908.

REPORT OF CHIEF ANALYST.

OTTAWA, September 16, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to report as follows upon the work of this laboratory, for the fiscal year ending March 31, 1908.

During this period, 2,626 samples were collected by our inspectors. The results of analysis of these are detailed in Bulletins 135 to 150, as follows :—

Number of Bulletin.	Subject.	Number of samples.
135	Spirituous Liquors.....	68
136	Almond Flavouring Extracts.....	65
137	Ground Ginger	30
138	Ground Cinnamon	33
139	Fertilizers as sold	107
140	Maple Sugar.....	257
141	Maple Syrup.....	244
142	Milk	343
143	Drugs	389
144	Condensed Milk.....	142
145	Strained Honey	253
146	Drugs	196
147	Lard	140
148	Honey	141
149	Well-waters	128
150	Canned Salmon.. . . .	90
		2,626

In addition to the above there have been performed the following occasional analyses, during the year :—

	Samples.
Acetic Acid	13
Alcohol	2
Beer	40
Butter	2
Butterine	11
Baking Soda	2
Sugar	1
Coal	1
Caustic Soda	1
Candies	4
Cream of Tartar	14
Cider	2
Coffee	2
Carbolicene	1
Dextro-Maltine	1
Fusel Oil.....	4

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Fertilizers	12
Jam	3
Lard.....	33
White Lead.....	1
Patent medicines	21
Maple Sugar	2
Maple Syrup.....	5
Milk	3
Morphine Sulphate	1
Oils	4
Olive oil.....	3
Spirits	7
Snuff	2
Spices	7
Tea.	2
Vinegar.....	347
Water	14
Worts.....	1
Wood Alcohol	1
Wax Candles	6
Total	576

The total number of analyses made is therefore 3,202.

The following solutions have been prepared and supplied for the use of Excise Officers, in vinegar testings :—

Normal Soda Solutions	63	Winchesters.
Standard Phenolphthalein.....	14	bottles.
“ Standard Sulphuric Acid.....	4	“

A considerable amount of investigatory work has been carried out, both in connection with the subject matter arising out of regular collections, and also in special lines. Some references to this class of work, which necessarily entails much expenditure of time and labour, will be found in the Bulletins already mentioned. Other portions of it are reported, confidentially to yourself, or remain on file here, as a guide to researches to be carried out later.

The matter of establishing standards for various foods has been kept in view, and it is hoped that it will be possible to make definite recommendations, in the case of certain articles, in the near future.

The following notes upon the work recorded in the several Bulletins, is intended to present, in epitome, the principal conclusions reached :—

Bull. 135.—In 68 samples of Whiskey, taken at different bars throughout Saskatchewan and Alberta, the absence of methyl alcohol (wood spirits) was conclusively proved. 43 per cent of the samples obtained in Saskatchewan and 88 per cent of those obtained in Alberta, were found to be up to proof strength.

Bull. 136.—In 65 samples of Almond Flavouring Extracts, 61 samples proved to be quite free from hydrocyanic acid (prussic acid). Only 3 samples contained a measurable amount, and this was too minute to be in any way dangerous.

Bull. 137.—Of 30 samples of Ground Ginger 29 were found to be genuine, or contained only traces of foreign starch. One sample contained 20 per cent of wheat starch.

Bull. 138.—Contains an examination of 33 samples of so-called Ground Cinnamon. A considerable amount of investigatory work was done with a view of establishing a difference between true Cinnamon and Cassia. These two varieties of spice run into

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each other through so many gradations that it is nearly impossible to distinguish between them ; and quite so, except in typical samples. Further work will be done upon this subject when opportunity offers.

Bull. 139.—This is a report upon 107 samples of Fertilizers, obtained on the market. Much difficulty has been found in making the present Fertilizer Act fulfil its intention of protecting the consumer against injustice and consequent serious injury. The main obstacles are *first*, securing the registration of all fertilizers offered for sale ; *second*, the identification of the article as sold with the registered brand. A new Act has been drafted, and secured two readings in the present parliament, during last session. It is hoped that, when this becomes law, the difficulties just referred to will disappear.

Bull. 140 and 141.—These bulletins deal with the examination of 501 samples of Maple Sugar and Syrup, as found on the markets of Canada.

It has been found possible to establish fairly satisfactory standards for these products ; and judged by such standards, the samples are classified as follows :—

	Sugar.	Syrup.
Found genuine.....	185	185
Sold as mixture.....	5	37
Found doubtful.....	10	2
“ adulterated	57	20
	<hr/> 257	<hr/> 244
		501

Bull. 142.—This bulletin deals with the examination of 343 samples of Milk collected throughout Canada. It contains a systematic study of the work done by this laboratory on the subject of milk, since 1887. The following sentences, which sum up my conclusions, may be quoted.

“In the face of what has been recorded I am compelled to admit that while I believe the standards for milk recommended by the late Chief Analyst to be reasonable, and already attained throughout the greater part of Canada, it is impracticable that they could be enforced by legal enactment over the whole of Canada. Without going so far as to say that the cow must herself be consulted in the matter of quality of milk, it is undeniable that the existence of many herds, whose average milk shows less than 3 per cent of fat, and less than 11.5 per cent total solids, makes the universal adoption of a three and a half per cent standard impossible.”

The standard referred to is :—

	Per cent.
Total solids.....	12
Butter fat.....	3.5
Non-fat solids.....	8.5

Bull. 143.—Contains a report upon certain drugs, as follows :—

	Samples.
Chloral Hydrate.....	129
Ammonium Bromide.....	129
Boracic Acid (sold as Am. Bro).....	1
Potassii Tartras Acidus.....	92
Rochelle Salt (sold as Pot. Tart. Acid.)	1
Cream of Tartar.....	36
Bi-carb. Soda (sold as Cr. Tar.),.....	1
Total.....	<hr/> 389

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All samples of chloral hydrate were found to be genuine. Ammonium bromide was found to be of very variable character, only 28·9 per cent of the samples reaching 97 per cent purity.

The question of fixing a standard for commercial cream of tartar of somewhat less rigour than that which the British Pharmacopœia requires for the drug (Potassii Tartras Acidus), is suggested; and will afford subject matter for later investigation.

Bull. 144 reports upon 142 samples of Condensed Milk. Many brands are sold as "Creams," although analysis show these brands to contain actually less butter fat than the ordinary condensed milk.

Suggestions having regard to the adoption of specific terminology and specific standards are made.

Bull. 145 is a report upon 253 samples of Strained Honey. Results may be summarized as follows:—

	Samples.
Genuine, and of normal character	188
" with high water content.....	31
Doubtful	4
Apparently adulterated.....	16
Sold as Compound.....	14
Total.....	253

The adulterations consisted in addition of glucose, or of cane sugar.

Bull. 146 reports upon the following drugs:—

	Samples.
Bismuth subnitrate	55
Potassium Bromide	57
Phenacetin	84
Total	196

All samples were found genuine.

Bull. 147 deals with 140 samples of Lard, collected throughout the Dominion. Two samples sold as genuine were found to contain cotton-seed stearin. Seven others were doubtfully pure lards.

Investigation of methods for the detection and estimation of beef stearin in lard is much needed, and will be proceeded with as leisure permits.

Bull. 148 is a further report upon Honey. 141 samples were collected in winter (December) at special suggestion of the Middlesex Bee-Keepers' Association.

	Samples.
Found genuine.....	135
" doubtful.....	3
" adulterated	2
Sold as compound	1
Total	141

Bull. 149, deals with an important but much neglected subject, the care of Domestic Wells. I have attempted to present the subject clearly and simply, with a view to its being dealt with by the municipalities interested. Although water is the most important of foods, yet being neither manufactured nor sold, in the ordinary sense of these words, it cannot be said to come strictly under the Adulteration of Food Act. Moreover anything like an effective supervision of public supplies would be too costly a business to be undertaken by this Department; while the great majority of wells are

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private property, and unless cared for by their owners, are likely to become very dangerous for household supply. Typhoid fever has become characteristically a disease of the country; and every autumn sees numbers of city people returning from the country and developing typhoid fever, which had its origin in impure well water, used by them while spending their summers in the country. Even private wells may become a public menace. When situated near a school house, church or hall, a private well is frequently made available to the public. Private wells often supply factories, creameries, bakeries, breweries, &c. Most household wells are, for convenience of access, placed close to the house, and are thus, through ignorance and thoughtlessness, especially liable to contamination.

This bulletin contains a special report upon 128 wells examined in the towns of Weston, Richmond Hill and Oakville. The work recorded is rather to be considered in the light of an object lesson than as a thorough investigation of determinate water supplies. Unless the municipalities concerned take the matter up, it is not likely that this Department will feel justified in proceeding further with it.

Bull. 150 reports upon 90 samples of Canned Salmon. All were in good condition.

In addition to the above, 267 samples have been analysed by the District Analysts, during the year, details of which will be found in their reports, which accompany this.

I have the honour to be, sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

TELEPHONE, MAIN 2264,
112 ST. FRANÇOIS XAVIER STREET,
MONTREAL, June 17, 1908.

DR. J. T. DONALD,
(Official Analyst to the Dominion Government.)
Analysis, Assaying, Cement Testing, &c., Designing
Chemical Supervision of Industrial Plants.

Director of Laboratory :
R. H. D. BENN, F.C.S.

The Deputy Minister,
Inland Revenue Department,
Ottawa.

SIR,—I have the honour to report during the fiscal year ending March 31, 1908. I have analysed 26 samples of Fertilizers. Of these 23 were found to be genuine. Three were reported doubtful as they were not registered.

I have the honour to be,
Your obedient servant,

J. T. DONALD.

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66 BEDFORD ROW,
HALIFAX, N.S., June 22, 1908.

The Deputy Minister of Inland Revenue,
Ottawa.

SIR,—I have the honour to submit my annual report on samples of food, &c., analysed by me during the year ending March 31, 1908, as follows :—

Samples.	Adulterated.	Doubtful.	Genuine.	Total.
Fertilizers.....	—	3	25	28
Milk	11	13	51	75
Total.....	.....	.....	.....	103

I have the honour to be, sir,
Your obedient servant,
MAYNARD BOWMAN.

OFFICE OF PUBLIC ANALYST FOR THE DISTRICT OF KINGSTON.
OTTAWA, June 24, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue,
Ottawa, Ont.

SIR,—I have the honour to lay before you my report on the samples submitted to me by your Department during the fiscal year ending March 31, 1908.
Fourteen commercial fertilizers were the only samples received during the year. Two of these were found not to come within the category of commercial fertilizers as they contained none or but traces of the three essential elements of plant food : nitrogen, phosphoric acid, and potash. One was found below guarantee in potash, and the others were found equal to guarantee.

I have the honour to be, sir,
Your obedient servant,
F. X. VALADE, M.D.,
Public Analyst.

FACULTY OF APPLIED SCIENCE AND ENGINEERING,
UNIVERSITY OF TORONTO, ONT.
SCHOOL OF PRACTICAL SCIENCE,
TORONTO, September 17, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to make the following report on the samples analysed in my laboratory during the past year.

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I have analysed 34 samples of fertilizers, with results as follows :—

	Samples.
Up to standard	22
Below "	4
Not registered	8
Total.....	34

I have the honour to be sir,
Your obedient servant,

W. H. ELLIS.

OFFICE OF THE PUBLIC ANALYST,
VICTORIA, B.C., June 22, 1908.

The Minister of Inland Revenue,
Ottawa.

SIR,—I have the honour to present a tabulated statement showing the general results of the examination of samples submitted to me by the Department during the year ending March 31, 1908.

Samples.	Watered.	Skimmed.	Partly Skimmed.	Low in Butter Fat.	Low in Total Solids.	Genuine	Adulterated.	Total.
Fertilizers	15	1	13	3	2	15	0	15
Milk.						41	.....	75

I have the honour to be, sir,
Your obedient servant,

Sd. C. J. FAGAN.

APPENDIX A.**BULLETIN No. 135—SPIRITUOUS LIQUOURS.**

OTTAWA, July 5, 1907.

W. J. GERALD, Esq.
Deputy Minister of Inland Revenue,
Ottawa.

SIR,—Consequent upon your letter (40602) of 27th December last, addressed to the late chief analyst, a collection of spirituous liquors was ordered to be made by Mr. Food Inspector Conklin, throughout the province of Saskatchewan. Twenty-two (22) samples were obtained, and the results of their examination are given in Table I. Special mention was made of Wolseley, Stockholm and Neudorf, as points of collection, and instructions furnished our inspector, made note of this; but the blocking of railways at the time (January) made it practically impossible to visit the two last named places.

Your further letter (41163) of the 30th January, authorized a similar collection throughout the province of Alberta. Forty-six (46) samples were obtained in February and March; and the results of their examination (except two samples which were broken in carriage) appear in Table II.

The immediate cause of this inspection, was the reported death of some persons who were thought to have been poisoned by the use of adulterated liquors. The samples which form the subject of this report, were obtained at public bars, &c.; and may therefore be taken to represent the average whiskey of the provinces in which they were sold. It is gratifying to find that no drugs, nor poisonous additions of any kind have been found in these liquors.

Particular attention has been given to the detection of methyl alcohol (wood spirit), since this is known to have poisonous properties. Its absence has been proved in every instance.

I beg to submit to you, for publication, as Bulletin 135, the accompanying records of work done upon these samples.

I have the honour to be, sir,
Your obedient servant,

A. MCGILL,
Acting Chief Analyst.

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Preliminary notes.

1. Canada has no generally accepted, or legally established spirit strength for alcoholic liquors. The British Foods Act, fixes 75 per cent proof, as the limit of reduction by water. On the basis of such a standard, the whiskey samples herein reported, may be classified as follows :—

	PROVINCE OF	
	SAS- KATCHEWAN.	ALBERTA.
Samples within 2 degrees of 75 per cent proof..	4	30
" below 75 degrees proof.....	12	5
" above 75 " "	5	8
Total examined.	21	43

Percentage of the number examined which are found to be equal to, or above 75 per cent proof strength :

In Saskatchewan.....	43 per cent.
In Alberta.....	88 "

2. Preliminary testing for methyl alcohol has been done by the determination of the refractive index of a carefully prepared distillate at 20° C.; the spirit strength of the distillate being accurately known, any marked lowering of the refractive index, as compared with that of ethyl alcohol, of the same strength, indicates the necessity of a specific search for methyl alcohol.

Experiment has proved that working errors need not produce a deviation of more than 0.5 degree (Abbe Immersion refractometer scale); and that the presence of one per cent of methyl alcohol is certainly detected by the method, in a properly prepared distillate.

TABLE I.—

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	Specific Gravity.
				Quantity.	—		
1907.					\$ c.		
Jan. 17	Rye Whiskey...	25933	J. H. Kerr, Moosejaw.	3 pts.	1 50	Gooderham & Worts, Tor- onto.	·9666
" 17	"	25934	McReberts Bros., Moosejaw, Sask.	3 "	1 00	Gooderham & Worts, Tor- onto.	·9479
" 17	"	25935	Jas. Mundell, Moose- jaw, Sask.	3 "	1 50	Gooderham & Worts, Tor- onto.	·9515
" 17	"	25936	E. C. Mathews, Moose- jaw, Sask.	3 "	1 50	A. S. Mills, Moosejaw...	·9515
" 18	"	25937	J. E. Wheeler, Caron, Sask.	3 "	1 50	Gooderham & Worts, Tor- onto.	·9517
" 19	"	25938	Stevens & Wilson, Swift Current, Sask.	3 "	1 50	Gooderham & Worts, Tor- onto.	·9534
" 19	Rum.....	25939	G. W. Webster, Swift Current, Sask.	3 "	2 00	Brown & Wilson, Mont- real.	·8732
" 23	Scotch Whiskey.	25940	Robt. Barry, Saska- toon, Sask.	3 "	2 00	John Robertson & Son, Dundee, Scotland.	·9373
" 23	" ..	25941	H. Wilson, Saskatoon, Sask.	3 "	1 75	Richard Belevier, Winni- peg.	·9345
" 24	Rye Whiskey...	25942	C. E. Mason & Son, Saskatoon, Sask.	3 "	1 50	Gooderham & Worts, Tor- onto.	·9593
" 24	"	25943	D. Kennedy, Saska- toon, Sask.	3 "	1 50	The Western Com. Co., Saskatoon.	·9578
" 25	"	25944	R. B. Fisher, Dun- durn, Sask.	3 "	1 50	The Western Com. Co., Saskatoon.	·9557
" 30	"	25945	Wm. Harris, McLean, Assa. W.	3 "	1 25	Gooderham & Worts, Tor- onto.	·9575
" 30	"	25946	W. R. Matchett, Bal- gonie, Assa. W.	3 "	1 50	Gooderham & Worts, Tor- onto.	·9529
" 31	Scotch Whiskey.	25947	T. C. Allen, Qu'Ap- pelle, Assa. E.	3 "	1 75	Kirk & Horner, Qu'Ap- pelle.	·9241
" 31	Rye Whiskey...	25948	R. T. Lord, Sintaluta, Assa. E.	3 "	1 25	Gooderham & Worts, Tor- onto.	·9478
Feb. 1	Scotch Whiskey.	25949	Charles Newburry, In- dian Head, Assa. E.	3 "	1 75	J. D. Robertson & Son, Dundee, Scotland.	·9373
" 1	Rye Whiskey...	25950	Barnes & Ghatsky, Grenfell, Assa.....	3 "	1 50	H. Walker & Son, Walk- erville.	·9615
" 2	"	25951	T. W. Williamson, Walseby, Assa.	3 "	1 50	Gooderham & Worts, Tor- onto.	·9475
" 4	"	25952	T. G. Dixon Mooso- min, Assa.	3 "	1 50	.....	·9483
" 4	Scotch Whiskey.	25953	S. B. Anderson, Mooso- min, Assa.	3 "	1 75	J. D. Robertson & Son, Dundee, Scotland.	·9400
" 4	Rye Whiskey...	25954	C. A. Waggoner, Whitewood, Assa.	3 "	1 25	E. J. Pelletier, Brandon..	·9520

* The British Sale of Food and Drugs Act, Amendment Act of 1879, Section 6, provides "That it shall be a good defence to prove that admixture with water has not reduced the spirit more than 25 de- grees under proof for brandy, whiskey or rum." The numbers in this column show how far the samples

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SAMPLES ANALYSED.
SASKATCHEWAN.

RESULTS OF ANALYSIS.									Remarks.
Alcohol percentage.			*Variation from 75 p.c. Spirit Strength.	Examination for Methyl Alcohol.					
Weight.	Volume.	Proof Spirit.		Density.	Alcohol p. c.	Refraction.			
						Found.	Theory.	Difference.	
23·9	29·1	51·1	-23·9	·9471	35·95	77·1	77·0	+0·1	Genuine, with added water. Genuine.
35·6	42·5	74·5	-0·5	·9401	39·75	81·2	81·2	0·0	
33·8	40·5	71·0	-4·0	·9411	39·25	80·5	80·5	0·0	
33·8	40·5	71·0	-4·0	·9439	37·72	78·7	78·8	-0·1	
33·7	40·4	70·8	-4·2	·9343	42·62	84·1	83·9	+0·2	"
32·6	39·2	68·7	-6·3	·9481	35·45	76·3	76·3	0·0	"
69·5	76·5	134·0	+59·0	·9734	18·54	48·2	47·6	+0·6	"
41·2	48·6	85·2	+10·2	·9375	41·05	83·4	82·5	+0·9	"
42·5	50·6	87·7	+12·7	·9340	42·76	84·6	84·0	+0·6	"
29·0	35·1	61·4	-13·6	·9497	34·67	75·4	75·4	0·0	" with water added.
30·0	36·2	63·4	-11·6	·9576	30·11	69·7	69·2	+0·5	" "
31·2	37·6	65·8	-9·2	·9532	32·78	43·4	42·7	+0·7	" "
30·2	36·4	63·8	-11·2	·9563	30·84	41·4	40·6	+0·8	" "
32·9	39·5	69·3	-5·7	·9509	34·10	44·4	43·8	+0·6	"
38·7	46·0	80·5	+5·5	·9429	38·28	48·4	47·6	+0·8	"
35·6	42·5	74·5	-0·5	·9466	36·22	46·4	45·8	+0·6	"
41·2	48·6	85·2	+10·2	·9715	20·08	51·2	50·6	+0·6	"
27·6	33·4	58·5	-16·5	·9795	13·54	38·5	37·7	+0·8	" with water added.
35·8	42·7	74·9	-0·1	·9747	17·50	45·7	45·3	+0·4	"
35·4	42·3	74·1	-0·9	·9756	16·77	44·7	44·1	+0·6	"
39·8	47·1	82·6	+7·6	·9719	19·75	50·3	50·0	+0·3	"
33·5	40·2	70·5	-4·5	·9761	16·38	43·5	43·3	+0·2	"

examined depart from a standard of 25 under proof strength. Below this standard, marked by minus sign ; above this standard, marked by + sign.

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RECORD OF LIQUOR

TABLE II—

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	Specific Gravity.
				Quantity.	—		
1907.					\$ cts.		
Feb. 18	Rye whiskey....	25958	R. McDonald, Edmon- ton, Alb.	3 pts.	1 50	The Edmonton Wine and Spirit Co., Edmonton.	·9483
" 18	"	25959	Geo. McLaughlin, Ed- monton, Alb.	3 "	1 50	H. Walker & Sons, Wal- kerville, Ont.	·9485
" 18	" ...	25960	Harry Finch, Edmon- ton, Alb.	3 "	1 50	Gooderham & Worts, To- ronto, Ont.	·9501
" 18	"	25961	L. Gooderidge, Edmon- ton, Alb.	3 "	1 50	Corby's, Belleville, Ont.	·9478
" 18	"	25962	Mrs. B- Heter, Edmon- ton, Alb.	3 "	1 50	Gooderham & Worts, To- ronto, Ont.	·9484
" 19	"	25963	Lannie Belanger, Ed- monton, Alb.	3 "	1 50	Gooderham & Worts, To- ronto, Ont.	·9482
" 19	"	25964	J. N. Pomerleau, Ed- monton, Alb.	3 "	1 50	Not known..	·9405
" 19	"	25965	Castle Hotel Co., Ed- monton, Alb.	3 "	1 50	H. Walkerville, Walker- ville, Ont.	·9475
" 19	"	25966	Jas. McCausland, Ed- monton, Alb.	3 "	1 50	Gooderham & Worts, To- ronto, Ont.	·9486
" 19	"	25967	Wagott & Tilly, Ed- monton, Alb.	3 "	1 50	Gooderham & Worts, To- ronto, Ont.	·9477
" 20	" ...	25968	John J. Mellon, Strath- cona, Alb.	3 "	1 50	Gooderham & Worts, To- ronto, Ont.	·9491
" 20	"	25969	E. McGuinness, Strath- cona, Alb.	3 "	1 50	Hudson Bay Co., Edmon- ton.	·9480
" 21	" ...	25970	Lucien Bordeau, St. 3 Albert, Alb.	"	1 50	H. Walker & Sons, Wal- kerville, Ont.	·9515
" 21	"	25971	W. Asselin, St. Albert, 3 Alb.	"	1 50	Gooderham & Worts, To- ronto, Ont.	·9476
" 22	"	25972	T. A. Shipley, Fort 3 Saskatchewan, Alb.	"	1 50	Not known.....	·9538
" 22	Scotch whiskey..	25973	Langhauser & Minz, Ft. 3 Saskatchewan, Alb.	"	1 75	Strickland & Henderson, Fort Saskatchewan.	·9344
" 22	Rye whiskey....	25974	Cameron & O'Leary. 3 Horse Hills, Alb.	"	1 50	J. B. Mercer, Edmonton.	·9485
" 23	Scotch whiskey..	25975	C. Gitzel, Spruce 3 Grove, Alb.	"	2 00	J. B. Mercer, Edmonton.	·9322
" 23	Rye whiskey....	25976	Fred. Wader, Stony 3 Plains, Alb.	"	1 50	H. Walker & Sons, Wal- kerville, Ont.	·9461
" 28	"	25977	L. Charlebeau, Cal- 3 gary, Alb.	"	1 25	H. Walker & Sons, Wal- kerville, Ont.	·9407
" 28	"	25978	Cornell & Co., Calgary, 3 Alb.	"	1 25	Gooderham & Worts, To- ronto, Ont.	·9482
" 28	"	25879	Moody & Co., Calgary, 3 Alb.	"	1 25	H. Walker & Sons, Wal- kerville, Ont.	·9462
" 28	" ...	25980	Stephens & Co., Cal- 3 gary, Alta.	"	1 50	H. Walker & Sons, Wal- kerville, Ont.	·9473
Mar. 1	White Wheat Whiskey.	25981	The Calgary Wine and Spirit Co., Calgary.	2 qts.	1 50	The Calgary Wine and Spirit Co., Calgary.	·9556
" 5	Rye Whiskey...	25986	F. J. Dunn, Airdrie, 3 Alta.	pts.	1 50	H. Walker & Sons, Walk- erville, Ont.	.....
" 5	Scotch Whiskey.	25987	McKay & Lee, Cross- 3 field, Alta.	"	1 50	The Calgary Wine and Spirit Co., Calgary.	·9385
" 6	Rye Whiskey...	25988	J. C. Brewster, Bow- 3 den, Alta.	"	1 25	H. Walker & Sons, Walk- erville.	·9442

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SAMPLES ANALYSED.
ALBERTA.

RESULTS OF ANALYSIS.									Remarks.
Alcohol percentage.			Variation from 75 p.c. Spirit Strength.	Examination for Methyl Alcohol.					
Weight.	Volume.	Proof Spirit.		Density.	Alcohol.	Refraction.			
						Found.	Theory.	Differ- ence.	
					p. c.				
35.4	42.3	74.1	- 0.9	.9751	17.17	45.4	44.9	+0.5	Genuine.
35.3	42.2	73.9	- 1.1	.9751	17.17	45.4	44.9	+0.5	"
34.5	41.3	72.4	- 2.6	.9755	16.85	44.6	44.3	+0.3	"
35.6	42.5	74.5	- 0.5	.9747	17.50	45.6	45.5	+0.1	"
35.3	42.2	73.9	- 1.1	.9749	17.33	45.7	45.3	+0.4	"
35.4	42.3	74.1	- 0.9	.9747	17.50	45.8	45.5	+0.3	"
39.6	46.9	82.2	+7.2	.9723	19.42	50.2	49.4	+0.8	"
35.8	42.7	74.9	- 0.1	.9746	17.58	46.4	45.7	+0.7	"
35.2	42.1	73.7	- 1.3	.9748	17.42	45.9	45.4	+0.5	"
35.7	42.6	74.7	- 0.3	.9746	17.58	45.8	45.7	+0.1	"
35.0	41.8	73.3	- 1.7	.9751	17.17	45.4	44.9	+0.5	"
35.5	42.4	74.3	- 0.7	.9742	17.92	46.9	46.3	+0.6	"
33.8	40.5	71.0	- 4.0	.9758	16.62	44.3	43.8	+0.5	"
35.7	42.6	74.7	- 0.3	.9744	17.75	46.2	46.0	+0.2	"
32.4	38.9	68.2	- 6.8	.9768	15.83	42.3	42.2	+0.1	"
42.6	50.2	87.9	+12.9	.9708	20.68	52.2	51.8	+0.4	"
35.3	42.2	73.9	- 1.1	.9748	17.42	45.5	45.4	+0.1	"
43.6	51.2	89.8	+14.8	.9697	21.54	53.2	53.2	+0.0	"
36.5	43.5	76.2	+1.2	.9447	37.28	78.5	78.3	+0.2	"
39.5	46.8	82.0	+7.0	.9398	39.90	81.5	81.4	+0.1	"
35.4	42.3	74.1	- 0.9	.9466	36.22	77.4	77.2	+0.2	"
36.4	43.4	76.0	+1.0	.9410	39.30	80.2	80.2	0.0	"
35.9	42.8	75.1	+0.1	.9499	37.16	78.0	78.2	- 0.2	"
31.3	37.7	66.7	- 8.3	.9559	31.06	70.3	70.5	- 0.2	Genuine.
.....									Sample broken in transit.
40.6	48.0	84.1	+9.1	.9380	40.80	82.2	82.2	0.0	Genuine.
37.6	41.7	78.4	+3.4	.9444	37.44	78.2	78.5	- 0.3	"

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RECORD OF LIQUOR

TABLE II.—

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	Specific Gravity.
				Quantity.	—		
1907.					\$ c.		
Mar. 6	Rye Whiskey...	25989	Malcolm & Gladwin, Carstairs, Alta.	3 pts.	1 50	Gooderham & Worts, Toronto.	·9491
" 6	"	25990	T. E. Driscoll, Carstairs, Alta.	3 "	1 50	Gooderham & Worts, Toronto.	.....
" 6	"	25991	McIlgarhey Bros., Didsbury, Alta.	3 "	1 50	Gooderham & Worts, Toronto.	·9481
" 6	"	25992	W. Spenham, Penbold, Alta.	3 "	1 50	H. Walker & Sons, Walkerville.	·9482
" 7	" ...	25993	Bucham & Robertson, Innisfail, Alta.	3 "	1 50	H. Walker & Sons, Walkerville.	·9454
" 7	Scotch Whiskey.	25994	Brazier & Kenny, Red Deer, Alta.	3 "	1 75	Greenless Co., Scotland ..	·9356
" 7	Rye Whiskey...	25995	Fred Krause, Red Deer, Alta.	3 "	1 50	Gooderham & Worts, Toronto.	·9479
" 7	" ..	25996	G. B. Shore, Blackfalds, Alta.	3 "	1 50	S. Creighton, Lacombe, Alb.	·9485
" 8	"	25997	Boode & Johnson, Lacombe, Alta.	3 "	1 00	H. Walker & Sons, Walkerville.	·9480
" 8	"	25998	S. Creighton, Lacombe, Alta.	2 qts.	1 50	Gooderham & Worts, Toronto.	·9481
" 8	"	25999	Anderson & Dea, Ponoka, Alta.	3 pts.	1 25	H. Walker & Sons, Walkerville.	·9484
" 8	" ...	26000	Geo. Lambert, Ponoka, Alta.	3 "	1 50	S. Creighton, Lacombe, Alb.	·9489
" 8	Scotch Whiskey.	25601	J. H. Smith, Morning side, Alta.	3 "	1 75	S. Creighton, Lacombe, Alb.	·9375
" 12	Rum	25602	Jos. Preos, Morinville, Alta.	3 "	1 50	Hudson Bay Co., Edmonton.	·9114
" 12	Rye Whiskey..	25603	T. Paquette, Morinville, Alta.	3 "	1 50	Edmonton Wine and Spirit Co.	·9496
" 12	"	25604	Guertin & Hittinger, Morinville, Alta.	3 "	1 50	Hudson Bay Co., Edmonton.	·9486
" 13	" ...	25605	D. McDonald, Legal, Alta.	3 "	1 50	Hudson Bay Co., Edmonton.	·9475
" 18	" ...	25606	T. Gagnon, Athabaska Landing, Alta.	3 "	1 50	J. B. Mercer, Edmonton.	·9489
" 18	"	25607	Thos. B. Kirk, Athabaska Landing, Alta.	3 "	1 50	Gooderham & Worts, Toronto.	·9646

*The British Sale of Food and Drugs Act Amendment Act of 1873, Section 6, provides that it shall be a good defence to prove that admixture with water has not reduced the spirit more than 25 degrees under proof for brandy, whiskey or rum. The numbers in this column shew how far the samples examined

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SAMPLES ANALYSED.

ALBERTA—*Concluded.*

RESULTS OF ANALYSIS.									Remarks.
Alcohol percentage.			Variation from 75 p.c. Spirit Strength.	Examination for Methyl Alcohol.					
Weight.	Volume.	Proof Spirit.		Density.	Alcohol p.c.	Refraction.			
						Found.	Theory.	Difference.	
35·0	41·8	73·3	-1·7	·9479	35·55	76·4	76·6	-0·2	"
.....	.....	.....	.....	.....	.....	.....	.....	.....	Sample broken in transit.
35·5	42·4	74·3	-0·7	·9471	35·95	76·8	77·0	-0·2	Genuine.
35·4	42·3	74·1	-0·9	·9489	35·05	76·1	76·0	+0·1	"
36·9	43·9	77·0	+2·0	·9444	37·44	78·5	78·5	0·0	"
42·0	49·5	86·75	+11·7	·9375	41·05	82·4	82·5	-0·1	"
35·6	42·5	74·5	-0·5	·9376	41·00	82·1	82·3	-0·2	"
35·3	42·2	73·9	-1·1	·9447	37·28	78·0	78·3	-0·3	"
35·5	42·4	74·3	-0·7	·9313	44·05	85·1	85·3	-0·2	"
35·5	42·4	74·3	-0·7	·9317	43·86	85·0	85·1	-0·1	"
35·3	42·2	73·9	-1·1	·9493	34·86	75·5	75·7	-0·2	"
35·1	42·0	73·5	-1·5	·9492	34·90	75·5	75·7	-0·2	"
41·1	48·5	85·1	+10·1	·9411	39·25	80·7	80·5	+0·2	"
53·0	60·9	106·6	+31·6	·9121	52·64	92·2	92·0	+0·2	"
34·7	41·5	72·8	-2·2	·9490	35·00	75·5	75·9	-0·4	"
35·2	42·1	73·7	-1·3	·9469	36·06	76·9	77·1	-0·2	"
35·8	42·7	74·9	-0·1	·9459	36·61	77·6	77·6	0·0	"
35·1	42·0	73·5	-1·5	·9479	35·55	76·3	76·5	-0·2	"
25·4	30·9	54·2	-20·8	·9629	26·60	63·3	63·0	+0·3	" with added water.

depart from a standard of 25 under proof strength, Below this standard, marked by minus sign ; above this standard, marked by + sign.

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APPENDIX B.**BULLETIN No. 136—ALMOND FLAVOURING EXTRACTS.**

OTTAWA, July 10, 1907.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to submit a report upon sixty-five samples of Almond Flavouring Extracts, with accompanying note, and would respectfully suggest the publication of the whole, as Bulletin No. 136.

I have the honour to be, sir,
Your obedient servant,

A. MCGILL,
Acting Chief Analyst.

ALMOND FLAVOURING EXTRACTS.

In consequence of some reported cases of apparent poisoning from the use of Almond Extracts, supposed to contain more than traces of hydrocyanic (prussic) acid, (L. 40850), a collection of sixty-five (65) samples of Essence of Bitter Almonds, sold for the purpose of flavouring pastry, icecream, &c., was made in April and May of this year. Five samples were purchased in each of the thirteen Inspectoral Districts.

These have been carefully examined for prussic acid, by Mr. Lemoine, of this Laboratory, and his results are given in the accompanying table.

I may explain that prussic acid is not an essential constituent of an almond flavouring extract, except in the sense that it is naturally produced by a ferment present in the almond seed, which acts on the glucoside amygdaline to produce benzaldehyde and prussic acid, together with glucose. The benzaldehyde is the essential component, so far as development of flavour is concerned. For culinary purposes, the prussic acid should be removed by special treatment.

In modern practice it is usual to substitute an artificial benzaldehyde, made from toluene, for the article produced as above, by fermentation of amygdaline. The artificial benzaldehyde is, (according to Squire's Companion to the British Pharmacopœia, 17th edition, p. 90) 'scarcely inferior as a flavouring agent, to the natural oil.' It has the advantage of being entirely free from prussic acid, and I cannot regard the employment of pure benzaldehyde in the preparation of almond flavouring essences, as fraudulent; although I consider it desirable that a distinction should be made between such an essence and one made from the almond kernel, by appending the descriptive word '*Artificial*' to the same.

Nitrobenzol (oil of mirbane) is sometimes used as a substitute for benzaldehyde in the preparation of artificial almond flavouring. Since this article is quite different in chemical character, from the natural flavour, its employment is to be regarded as an adulteration. Its odour is somewhat like that of benzaldehyde, but more pungent. Nitrobenzol has not been found in any of the samples now reported. Dyes have been found in nine samples. There can be no reason found for the use of dyes, in almond essence, except the gratification of a popular demand for colour. It is to be regretted that a false taste should exist in this regard. So far as wholesomeness is concerned, there is no ground for complaint, as regards the traces of colouring matter found.

Hydrocyanic acid (prussic acid) is entirely absent from sixty-one (61) of the sixty-five (65) samples now reported. In one of the remaining four samples, a mere trace was found, and in only three (3) was the quantity measurable. In these cases the

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amount is too small to have any practical danger to the user, and, although its presence may be taken to be a guarantee of the natural character of the article, I think it undesirable that even traces should remain in the flavouring essence.

Total number of samples analysed.....	65
Number entirely free from prussic acid.....	61
" containing measurable amounts.....	3
" " trace only.....	1
" " dyes.....	9

EXPLANATORY NOTE.

Essences used for experimenting purposes were compounded according to the U.S Pharmacopœia as follows :—

Stock	Benzaldehyde	1 part, alcohol 80 parts, water to 100.
"	Nitrobenzol	" " "
"	Oil of Bitter Almonds	" " "

The methods followed in the above researches were those described by Leach, 'Food Inspection and Analysis, pages 749-51'; with the exception, as regards nitrobenzol that it was found easier to dip the test-tube in hot water instead of boiling the liquid on a naked flame. The appearance of a deep violet ring at the lower part of the tube was found to be a delicate test; three cubic centimetres of the essence of nitrobenzol giving an evident reaction. The two other prepared essences gave no reaction. Four cubic centimetres of the essence of nitrobenzol diluted to double quantity with an essence bought in the city also gave the reaction, the added essence having previously given no response to tests for nitro benzol.

The delicacy and accurateness of the silver cyanide test in the quantitative estimation of prussic acid was proved as follows. A few cubic centimetres of the distillate from a mixture of ferrocyanide of potassium and sulphuric acid were made up to 100ccs. and gave following results :—

1cc. required $2 \cdot 2 \frac{N}{10}$ silver solution ; $\frac{1}{2}$ strength required	1.3
" 2.5	1.2
" 2.4	1.2
" 2.4	1.2
25ccs. U.S.P. essence required.....	3.5
" " 	3.5
" " 	3.4
" " 	3.4

As 1cc. $\frac{N}{10}$ silver solution is equal to 0.0027 grmm. prussic acid, $3.5 \times 0.0027 = 0.0094$; $0.0094 \times 4 = 0.038$ grmm. per 100ccs. (1,680 minims).

The diluted hydrocyanic acid of the B.P. contains 2 per cent acid and is given at the dose of 2-6 minims = $\frac{1}{12}$ of a grain or 0.0054 grmm. for the maximum dose. It is not therefore probable that the three samples of essence containing respectively 0.0054, 0.0081, 0.0081 grmm. per 100 minims could become injurious. But it is to be desired that the oil of bitter almonds used in the manufacture of these essences should be absolutely free from prussic acid.

ALP. LEMOINE.

July 8, 1907.

14—2½

RECORD OF SAMPLES OF ALMOND FLAVOURING EXTRACT, ANALYSED BY THE LABORATORY OF THE
INLAND REVENUE DEPARTMENT.

District of Nova Scotia—R. J. Waugh, Inspector.

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.		
				Quantity.	Cents.			Nitro benzol.	Hydrocyanic Acid grms. per 100 minims.	Dyes.
1907.										
April 18	Almond Flavouring Extract.	27341	Brown Bros., Halifax.....	3 ozs.	45c.	Vendors.....	.....	None.	0.0054	None.
" 18	"	27342	T. F. Courtney & Co., Halifax..	3 bots.	75c.	Church & Paul, London, Ont..	Labelled, Paul's Perfect Es- sences.	None.	None.	None.
" 19	"	27343	I. Moser, Halifax.....	3 "	30c.	Robinson Manufacturing Co., Toronto, Ont.	Labelled, our R. F. Concen- trated Ext. for flavouring.	None.	None.	None.
" 23	"	27344	J. H. Barss, Wolfville, N.S.....	3 "	30c.	National Drug & Chemical Co., Halifax.	Sovereign Brand.....	None.	0.0084	None.
" 26	"	27345	J. J. Kinley, Lunenburg, N.S..	3 ozs.	45c.	J. J. Kinley, Lunenburg, N.S.	.....	None.	0.0084	None.

District of Prince Edward Island—T. Moore, Inspector.

April 19	Almond Flavouring Extract.	31111	R. Tuplin Kensington....	4 ozs.	40c.	Grey Manufacturing Co., Mon- treal.	.....	None.	None.	None.
" 20	"	31112	R. T. Holman, Ltd., Summer- side.	3 "	30c.	Dearborn & Co., St. John....	.....	None.	None.	None.
" 20	"	31113	F. W. Strong, Summerside.....	3 "	30c.	Tropical Extract Co., Toronto..	.....	None.	None.	Present.
" 20	"	31114	W. H. Pigott, Mount Stewart..	4 "	40c.	Dearborn & Co., St. John....	.....	None.	None.	None.
" 20	"	31115	A. A. McDonald Bros., George- town.	3 "	30c.	McLarren's, Halifax .....	.....	None.	None.	None.

District of New Brunswick—J. C. Ferguson, Inspector.

April 16	Almond Flavouring Extract.	24359	Dearborn & Co., 95 Prince William street, St. John, N.B.	3 bots.	45c.	Dearborn & Co., St. John, N.B.	Pure Flavouring Extract.	None.	None.
" 16	" "	24360	G. E. Barbour & Co., Ltd., North Wharf St. John, N.B.	3 "	54c.	G. E. Barbour Co., St. John, N.B.	Fine Flavouring Extract.	None.	None.
" 23	" "	24392	Sussex Mercantile Co., Ltd., Main street, St. John, N.B.	3 "	60c.	Sussex Mercantile Co., St. John, N.B.	Pure Concentrated Extract.	None.	None.
May 9	" "	24393	Inches & Grimmer, Water street, St. Stephens, N.B.	3 "	45c.	Pure Gold Manufacturing Co., Ltd., Toronto.	Pure Gold Flavouring Extract.	None.	Present.
" 11	" "	24394	W. H. Vanwart, Queen street, Fredericton, N.B.	3 "	40c.	" " "	" "	None.	Present.

District of Quebec—E. Beland, Inspector.

April 5	Almond Flavouring Extract.	26195	J. A. Chabot, 271 St. Joseph street.	3 bots.	75c.	Imperial Extract Co., New York.		None.	None.
" 22	" "	26248	Jos. Savard, 35 St. Jean street.	3 "	75c.	Albert Dunn, Agent.		None.	None.
" 23	" "	26249	E. Lafrance, 272 St. Jean street.	3 "	75c.	" " "		None.	None.
" 23	" "	26250	Jas. Miller, 152 St. Jean street.	3 "	75c.	" " "		None.	None.
" 23	" "	26251	Jas. Miller, 152 St. Jean street.	3 "	45c.	" " "		None.	None.

District of St. Hyacinthe—J. C. Rouleau, Inspector.

April 17	Almond Flavouring Extract.	593	McRea Bros., Richmond...	3 bots.	30c.	Robt. Creig Co., Ltd., Toronto, Ont.		None.	None.
" 17	" "	594	W. S. Sampson, Windsor Mills.	3 "	30c.	Robt. Creig Co., Ltd., Toronto, Ont.		None.	None.
" 18	" "	595	Dr. J. P. H. Massicotte, Victoriaville.	3 "	30c.	F. M. Peltier, Victoriaville.		None.	None.
" 20	Bitter Almond Flavouring Extract.	596	L. H. Olivier, Sherbrooke.	3 "	75c.	Pure Gold Mfg. Co., Toronto, Ont.		None.	Present.
" 24	Almond Flavouring Extract.	597	P. A. Galipeau, Farnham.	3 "	25c.	Henri Jonas & Co., Montreal.		None.	None.

District of Montreal—J. J. Cortigan, Inspector.

April 13	Almond Flavouring Extract.	32501	Henri Jonas & Co., St. Paul street, Montreal.	14 lb.	50c.	Vendor		None.	None.
" 22	" "	32502	Colonial Fluid Beef and Specialty Co., Montreal.	3 bots.	30c.	" "		None.	None.
" 22	" "	32503	Lyon Silverman, Notre Dame street, Montreal.	3 "	35c.	" "		None.	None.
" 22	" "	32504	M. J. McKerley, 120 Park Ave., Montreal.	3 "	30c.	Hamilton Coffee and Spice Co.		None.	None.
" 22	" "	32505	S. Carsley & Co., Limited, Notre Dame street, Montreal.	3 "	25c.	Imperial Extract Co., Toronto.		None.	None.

RECORD OF SAMPLES OF ALMOND FLAVOURING EXTRACTS, ANALYSED BY THE LABORATORY OF THE
INLAND REVENUE DEPARTMENT—Continued.

District of Ottawa—E. Belisle, General Inspector.

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Inspector's Report.	RESULTS OF ANALYSIS.		
				Quantity.	Cents.		Nitro benzol.	Hydrocyanic Acid grms. per 100 minims.	Dyes.
1907.									
April 9	Almond Flavouring Extract.	32362	W. H. Dunkin, Cornwall	3 bots.	30c.	Imperial Extract Co., Toronto.	None.	None.	None.
May 7	"	32240	Hull Medical Hall	9 ozs.	50c.	Vendor	None.	None.	None.
" 7	"	32241	A. R. Farley, 178 Albert street, Hull, P.Q.	8 "	75c.	"	None.	None.	None.
" 7	"	32242	J. Skinner & Son, Ottawa, Ont.	8 "	80c.	"	None.	None.	None.
April 15	"	32377	Bryson, Graham & Co., Sparks street.	3 bots.	60c.	Pure Gold Mfg. Co., Toronto, Ont.	None.	None.	Present.

District of Kingston—Jas. Hogan, Inspector.

April 2	Almond Flavouring Extract.	31084	W. J. Nesbitt, Johnston street, Kingston.	3 ozs.	30c.	McLarens	None.	None.	None.
" 3	"	31096	Willbridge & Clark, Front st., Belleville.	5 "	45c.	Davis & Lawrence, Montreal.	None.	None.	None.
" 4	"	32411	Adams Bros., Kent street, Lindsay.	3 "	30c.	Cormon & Eckert, London, Ont.	None.	None.	None.
" 4	"	32416	White & Gillespie, George street Peterboro'.	3 "	30c.	T. E. Co., Toronto.	None.	None.	None.
" 4	"	32418	Mason Co., George street, Peterboro'.	3 "	30c.	A. C. & S. Co.	None.	None.	None.

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District of Toronto—H. J. Dagar, Inspector.

May	8	Almond Extract.	33262	Spencer Smith, Toronto..	3 bots.	45c.	Benson Mfg. Co., Toronto....	Labelled 20th Century....	None.	None.	None.
"	8	"	33263	J. J. Burton, Toronto.	3 "	38c.	Tropical Extract Co., Toronto.	Labelled Oriental.....	None.	None.	Present.
"	9	"	33264	W. K. Medland, Toronto.	3 "	30c.	Dalton Bros., Toronto.....	Labelled Nonpareil.....	None.	None.	Present.
"	20	"	33265	J. L. Brown, Hamilton	3 "	30c.	H. C. & S. Co., Hamilton.....	.....	None.	None.	None.
"	20	"	33266	Peebles, Hobson & Co., Hamil- ton.	3 "	75c.	—, Seely, Detroit and Windsor	.....	None.	None.	None.

District of London—Thos. Kidd, Inspector.

April	17	Almond Extract.	30304	Williams & Purcell, Seaforth...	3 bots.	30c.	Imperial Extract Co., Toronto.	.....	None.	None.	None.
"	18	"	30306	J. W. Irwin, Clinton	3 "	30c.	Canada Spice & Grocery Co., London, Ont.	.....	None.	None.	None.
"	19	"	30310	Walsh Bros., Stratford.....	3 "	30c.	F. F. Dalley & Co., Hamilton, Ont.	.....	None.	None.	None.
"	19	"	30313	Gorman, Eckart & Co., Lon- don, Ont.	3 "	30c.	W. R. Coll, Mitchell .....	.....	None.	None.	None.
"	23	"	30320	Geo. A. Young, Chatham...	3 "	30c.	Sheriffs, Toronto.....	.....	None.	None.	None.

District of Manitoba—W. M. Conklin, Inspector.

May	15	Almond Extract.	25801	T. Eaton & Co., Winnipeg..	2½ ozs.	60c.	Codville, Georgesen & Co., Winnipeg.	.....	None.	None.	None.
"	15	"	25802	E. B. Nixon, Winnipeg.	2½ "	75c.	McLaren... ..	.....	None.	None.	None.
"	15	"	25803	J. Robinson & Co., Winnipeg...	4 "	\$1.05	F. F. Dalley & Co., Hamilton.	.....	None.	None.	None.
"	16	"	25804	A. McDonald, Winnipeg.	2½ "	75c.	McLaren.....	.....	None.	Trace.	None.
"	16	"	25805	T. Hurtley & Co., Winnipeg...	2½ "	75c.	Sheriff .....	.....	None.	None.	None.

RECORD OF SAMPLES OF ALMOND FLAVOURING EXTRACT, ANALYSED BY THE LABORATORY OF THE
INLAND REVENUE DEPARTMENT—Concluded.

District of Calgary—R. W. Fletcher, Inspector.

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Inspector's Report.	RESULTS OF ANALYSIS.		
				Quantity.	Cents.		Nitro benzol.	Hydrocyanic Acid grms. per 100 minims.	Dyes.
1907.									
May 9	Almond Flavouring Extract.	28761	A. Urquhart & Co., Lacombe.	3 bots.	90c.	.....	None.	None.	None.
" 9	"	28762	J. G. Pratt, Lacombe.	3 "	75c.	Blue Ribbon Mfg. Co., Winnipeg.	None.	None.	None.
" 11	"	28763	L. Lambert, Edmonton.	3 "	60c.	McLaren, Hamillon.	None.	None.	None.
" 11	"	28764	Capital Mercantile Co., Edmonton.	3 "	60c.	Pure Gold Mfg. Co., Toronto.	None.	None.	Present.
" 11	"	28765	Hudson Bay Co., Edmonton.	3 "	50c.	Blue Ribbon Mfg. Co., Winnipeg.	None.	None.	None.

District of British Columbia—E. B. Parkinson, Inspector.

April 16	Almond Flavouring Extract.	32027	H. J. Hutcherson, Ladner, B.C.	3 bots.	60c.	J. H. Todd & Sons, Victoria, B.C.	None.	None.	Doubtful.
" 27	"	32083	City Grocery, Granville Street, Vancouver.	3 "	75c.	McLaren, Hamilton.	None.	None.	None.
" 27	"	32084	Empress Mfg. Co., Homer st., Vancouver.	3 "	50c.	Vendor.	None.	None.	Present.
" 27	"	32085	The Star of India Tea Co., Granville Street, Vancouver.	3 "	60c.	"	None.	None.	None.
May 18	"	32101	The H. A. Edgett Co., Hastings Street, Vancouver.	3 "	75c.	Seely, Detroit and Windsor.	None.	None.	None.

APPENDIX C.

BULLETIN No. 137—GROUND GINGER.

OTTAWA, July 15, 1907.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to submit you a report upon thirty (30) samples of Ground Ginger. These were collected throughout the Dominion, in November, 1906, in consequence of information received (F. 92549) which led to the belief that adulterated ginger was to be found on the Canadian Market.

Analysis shews 29 of these samples to be genuine, while adulteration is not absolutely certain in the remaining sample.

Ginger was made the subject of examination in 1896, and again in 1904. A synopsis of results shows the following :—

	Total samples examined.	PERCENTAGE.		
		Genuine.	Adulterated.	Doubtful.
Bulletin 48 — 1896	98	64	26	8
Bulletin 95 — 1904	10	6	4	0
Present report, 1907	30	29	0	1

The usual adulteration of ginger consists in the substitution of cheaper materials (flour, etc.), or in the use of exhausted rhizomes, i.e. stock from which the valuable principles have been more or less completely removed by washing. The examinations now made have had regard to the detection of such adulteration.

It is gratifying to find that ground ginger is now so largely unadulterated.

Some results obtained by the successive employment of certain solvents, are put on record ; and may be useful in the event of our having to make a more intimate study of the properties of ginger at a future time.

I beg to recommend the publication of this report, as Bulletin No. 137.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,
Acting Chief Analyst.

8-9 EDWARD VII., A. 1909

RECORD of Samples of Ground Ginger—analysed by

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost.	Name and Address of Manufacturer or Furnisher.
1906.			<i>District of Nova Scotia—R. J. Waugh, Inspector.</i>			
Nov. 5	Ground Ginger.....	27204	Dillon Bros., Sackville St., Halifax, N.S.	12 ozs.	21c..	Jno. P. Mott & Co., Halifax, N.S.
" 8	"	27218	Jno. Lynch & Sons, Windsor, N.S.	12 "	30c..	" " ..
			<i>District of Prince Edward Island—T. Moore, Inspector.</i>			
" 5	"	28327	Sinclair & Stewart	$\frac{1}{2}$ lb..	14c..	Schwartz & Son, Halifax, N.S.
			<i>District of New Brunswick—J. C. Ferguson, Inspector.</i>			
" 8	"	24287	G. E. Barbour Co., Ltd., 11 $\frac{1}{2}$ North Wharf, St. John, N.B.	3 pkgs.	30c..	Vendors.....
" 14	"	24289	Puddington & Merritt, 55 Charlotte St., St. John, N.B.	$\frac{3}{4}$ lb.	30c..	Jno. P. Mott & Co., Halifax, N.S.
			<i>District of Quebec—E. Beland, Inspector.</i>			
" 13	"	26047	Elzear Turcotte, 74 Desfossés, Que.	1 lb.	40c..	R. Herron & Co., Montreal.
" 13	"	26050	T. A. Chabot, 271 St. Josephs, Que.	1 "	40c..	Whitehead & Turner ..
" 13	"	26052	Chas. Riverin, 55 Couronne, Que.	1 "	40c..	Ewing Co., Montreal..
" 13	"	26053	L. N. Bergeron, 70 Couronne, Que.	1 "	30c..	Not known.....
			<i>District of St. Hyacinthe—J. C. Rouleau, Inspector.</i>			
" 8	"	589	N. Mitchell & Co., Granby, Que.	1 lb.	35c..	Chaput fils et Cie, Montreal.
" 9	"	590	Paradis & Leclaire, Sherbrooke, Que.	3 pkgs.	30c.	Marrotte, Leblanc et Cie, Montreal.
			<i>District of Montreal—J. J. Costigan, Inspector.</i>			
" 2	"	31626	S. H. Ewing & Son, King St., Montreal.	1 lb.	30c..	Vendor
" 2	"	31630	J. J. Duffy & Co., St. Paul St., Montreal.	$\frac{1}{2}$ "	13c..	"
" 10	"	31632	Heron Leblanc Co., Ltd., St. Paul St., Montreal.	$\frac{1}{2}$ "	10c..	"
Dec. 12	"	31636	Theo. Lefebvre & Co., Gosford St., Montreal.	$\frac{1}{2}$ "	10c..	"
			<i>District of Ottawa—A. E. Sanderson, Inspector.</i>			
Nov. 13	Ground Ginger.. ...	29384	G. Stewart, 237 Bank St., Ottawa.	1 lb.	40c..	Corcoran Co., Wellington St., Ottawa.
" 14	"	29386	Geo. Thomas, 63 George St., Ottawa.	1 "	30c..	Major, Ottawa.....

SESSIONAL PAPER No. 14
the laboratory of the Inland Revenue Department.

Inspector's Report.	RESULTS OF ANALYSIS.								Remarks.
	Moisture.	Volatile oil.	Fat.	Loss to Ethylic Ether after Petroleum Ether.	Loss to Alcohol after Ethylic Ether.	Loss to Water after Alcohol.	Cold Water Extraction (on dry substance).	Insoluble matter (on dry substance).	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
Labelled strictly pure.....	8.28	.....	.....	.....	.....	.....	21.15	78.85	Genuine.
Labelled Jamaica Ginger, strictly pure.	8.32	.....	.....	.....	.....	.....	21.10	78.90	"
.....	7.72	.....	.....	.....	.....	.....	21.41	78.59	"
Labelled strictly pure Ground Ginger, Acorn Brand, Maritime Spice & Coffee Mills, St. John, N.B.	7.52	.....	.....	3.48 3.64	3.96 4.32	6.64 6.89	20.88	79.12	"
From wooden box in store.	7.22	.....	.....	.....	.....	.....	21.16	78.84	"
.....	7.70	.....	.....	.....	.....	.....	17.61	82.39	Doubtful. Many starch granules do not show cross with polarized light.
.....	7.48	.....	.....	.....	.....	.....	22.00	78.00	Genuine.
.....	7.70	.....	.....	.....	.....	.....	21.30	78.70	"
.....	7.86	.....	.....	.....	.....	.....	21.87	78.13	"
The box was marked pure Jamaica Ginger.	8.48	.....	.....	.....	.....	.....	20.78	79.22	
Box marked pure.....	6.92	.....	.....	.....	.....	.....	22.30	77.70	
Taken at factory from stock.	7.52	.....	.....	.....	.....	.....	21.62	78.38	"
" " ..	7.86	.....	.....	.....	.....	.....	22.18	77.82	"
Taken at factory from bulk stock, wholesale price, 20c. per lb.	7.72	.....	.....	.....	.....	.....	21.96	78.04	"
Sample collected at factory	7.10	.....	.....	.....	.....	.....	20.64	79.36	"
Taken from bulk.....	6.40 9.82	2.64	3.24	1.40	5.68	5.76	24.50	75.50	"
"	5.76 9.00	2.76	1.06	2.26	1.83	5.88	22.57	77.43	"

RECORD of Samples of Ground Ginger—analysed by

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost.	Name and Address of Manufacturer or Furnisher.
1906.			<i>District of Kingston—J. Hogan, Inspector.</i>			
" 5	Ground Ginger.....	31007	Chas. Sunders, Princess St., Kingston.	1 lb.	30c..	Hamilton Coffee and Spice Co.
" 5	" ...	31010	Anderson Bros., Princess St., Kingston.	1 "	40c..	Not known.
			<i>District of Toronto—T. Kidd, Acting Inspector.</i>			
" 14	"	30219	Peter Anderson, Guelph, Ont	$\frac{1}{2}$ lb.	20c..	McPherson, Glasco & Co., Hamilton.
" 19	"	30233	Geo. E. Reynolds, Beeton, Ont.	$\frac{1}{2}$ "	20c..	H. P. Eckart, Toronto.
" 20	"	30236	J. D. Elliott, Tottenham, Ont.	6 ozs.	30c..	Robert Gregg & Co., Toronto.
" 20	"	30238	William Hamel, Tottenham, Ont.	$\frac{1}{2}$ lb.	20c..	Perkins, Ince & Co., Toronto.
			<i>District of London—T. Kidd, Inspector.</i>			
" 3	"	30200	Wm. Anderson, Chatham, Ont.	$\frac{1}{2}$ "	20c..	A.M.Smith & Co., London, Ont.
" 8	"	30213	Chas. A. Nairn, Goderich, Ont.	$\frac{1}{2}$ "	20c..	Gorman & Eckart, London, Ont.
			<i>District of Manitoba—Wm.M. Conklin, Inspector.</i>			
" 8	"	25906	McLellan & English, Virden, Manitoba.	$\frac{1}{2}$ lb.	20c..	Todhunter & Mitchell, Toronto.
" 8	"	25910	D. Rice, Brandon, Man.....	$\frac{1}{2}$ "	20c..	Codville & Co., Winnipeg.
			<i>District of British Columbia—E. B. Parkinson, Inspector.</i>			
" 9	"	28187	The Empress Mfg. Co., Ltd., Vancouver, B.C.	3 tins	20c..	Vendor ...
" 10	"	28194	F. Wright, Granville St., Vancouver, B.C.	$\frac{3}{4}$ lb.	30c..	Todhunter & Mitchell, Toronto.
" 12	"	28199	Woodward Dep. Stores, Abbott St., Vancouver, B.C.	3 tins	30c..	Wm. Braid & Co., Vancouver, B.C.

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the laboratory of the Inland Revenue Department.—*Concluded.*

Inspector's Report.	RESULTS OF ANALYSIS.								Remarks.
	Moisture.	Volatile oil.	Fat.	Loss to Ethylic Ether after Petroleum Ether.	Loss to Alcohol after Ethylic Ether.	Loss to Water after Alcohol.	Cold Water Extraction (on dry substances).	Insoluble matter (on dry substances).	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
.....	8.84	.....	.....	.....	.....	.....	23.80	76.20	Genuine.
.....	6.68	2.60	0.82	1.28	3.18	5.46	.....	.....	.....
.....	6.62	2.38	1.26	2.02	3.52	2.70	.....	.....	.....
.....	9.60	.....	.....	.....	.....	.....	19.16	80.84	"
.....	9.18	.....	.....	.....	.....	.....	24.33	75.67	"
.....	6.00	2.84	1.20	1.78	2.20	3.42	.....	.....	.....
.....	8.96	.....	.....	.....	.....	.....	19.96	80.04	"
.....	8.46	1.56	0.72	1.34	2.14	3.70	.....	.....	.....
.....	8.60	.....	.....	.....	.....	.....	24.63	75.37	"
.....	8.24	1.76	1.64	1.28	1.80	5.16	.....	.....	.....
.....	8.98	.....	.....	.....	.....	.....	24.25	75.75	"
.....	7.42	1.58	2.20	2.66	3.88	4.28	.....	.....	.....
.....	8.20	.....	.....	.....	.....	.....	23.37	76.63	"
.....	8.10	2.12	1.58	2.40	2.48	5.70	.....	.....	.....
.....	8.42	.....	.....	.....	.....	.....	20.98	79.02	"
.....	6.64	3.04	0.80	2.04	2.18	3.62	.....	.....	.....
.....	7.96	.....	.....	.....	.....	.....	22.27	77.73	"
.....	7.48	.....	.....	.....	.....	.....	22.50	77.50	Genuine ; but a little foreign starch is present.
Purchased at the factory, 'Empress brand.' Empress brand Coffee, Spices and Extracts always reliable.	7.34	.....	.....	.....	.....	.....	21.86	78.14	Genuine.
Bulk ginger	7.60	2.18	2.34	2.50	5.22	4.94	.....	.....	.....
Double superfine purity. Strength guaranteed first quality. The spice in this can is guaranteed to be of the finest quality, full strength and full weight. Put up expressly for vendors by Wm. Braid & Co.	8.16	.....	.....	.....	.....	.....	22.32	77.68	"
	6.14	.....	.....	.....	.....	.....	20.34	79.66	"

APPENDIX D.

BULLETIN No. 138--GROUND CINNAMON.

OTTAWA, July 16th, 1907.

W. J. GERALD, Esq.,

Deputy Minister of Inland Revenue.

SIR,—I beg to hand you herewith a report upon thirty-three samples of *Ground Cinnamon*, collected in November and December, 1906.

Cinnamon and *Cassia* are the dry barks of trees which belong to the same botanical genus, *Cinnamomum*. *Cinnamon* is the bark of *C. Zeylanicum*, chiefly grown in Ceylon and the East Indies; *Cassia* is the bark of *C. Cassia*, chiefly grown in China and India. The former bark is thinner, lighter in colour and exists (commercially) in smaller rolls than *Cassia* bark. It is sufficiently easy to distinguish the two articles, in the unground state; and there is a considerable difference in price between whole cinnamon and whole cassia. The botanical elements of the two are, however, practically identical; and, in the finely ground state, it becomes a difficult, if not an impossible thing, to discriminate between them. The darker colour of *Cassia* is almost the only distinctive character that remains.

Whether cassia is inferior to cinnamon for flavouring purposes, in cookery, is an open question. The general impression is that cinnamon is preferable. Its higher price is doubtless due to this preference. At the same time it is certain that much, if not most, of the ground cinnamon of commerce, is really ground cassia.

Several grinders distinctly label their goods with the word *Cassia*; and it is probable that the same spicemen put on the market a higher priced article under the name *Cinnamon*; but of this I have no conclusive proof. It is however quite certain that the spice in question is known to most domestic users as *Cinnamon*; while the term *Cassia* conveys a very vague meaning, or no meaning whatever. Throughout Quebec the article is known as *Canelle*, which means cinnamon as distinguished from cassia, to which belongs the term *Casse*, seldom mentioned except as a drug.

Under these circumstances, it will be seen that a discrimination between cinnamon and cassia, as spices, is difficult to maintain. It is open to question how far we may take the darker colour of cassia, as evidence of its presence. A sample of cinnamon, ground from the bark, was taken as the standard of colour; and among thirty-three samples, of spice bought as cinnamon, only two (2) were found to come up to the prepared standard. One of these was plainly labelled *Cassia* on the package. The sample in question contains no foreign starch, or other addition, which might account for its light colour; so that, unless bleaching has been resorted to, we must infer that some samples of cassia are as light in colour as normal cinnamon.

The difficulty of distinguishing between cinnamon and cassia, in the ground state, is recognized by the Committee of Standards at Washington, as shown by the following definitions, proclaimed as legal for the United States in June, 1906:

Cinnamon is the dried bark of any species of the genus *Cinnamomum*, from which the outer layers may or may not have been removed.

True Cinnamon is the dried inner bark of *Cinnamomum Zeylanicum*, Breyne.

Cassia is the dried bark of various species of *Cinnamomum*, other than *Cinnamomum Zeylanicum*, from which the outer layers may or may not have been removed.

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Cassia buds are the dried, immature fruit of species of *Cinnamomum*.

Ground Cinnamon, *Ground Cassia*, is a powder consisting of Cinnamon, Cassia or Cassia buds, or a mixture of these spices, and contains not more than six (6) per cent of total ash, and not more than two (2) per cent of sand.

So far as admixture of Cassia is concerned, I do not think that the present state of our knowledge justifies me in pronouncing it an adulteration of the spice known as Ground Cinnamon. This aspect of the matter must be left open for the present.

With a single exception, no other foreign matters have been found; and in this sample (No. 26,045) the amount of (wheat) starch is so small, as to be negligible.

As regards ash, the limit of six (6) per cent fixed by American Standard, is exceeded in six cases. I shall, however, await further experience with cinnamon, as occurring on the Canadian market, before feeling warranted in accepting the standards quoted.

The work on this subject has been mainly done by Mr. Lemoine of this Laboratory. An explanatory note by him accompanies the Table.

I beg to recommend the publication of this report as Bulletin No. 138.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,
Acting Chief Analyst.

8-9 EDWARD VII., A. 1909

RECORD of Samples of Ground Cinnamon—Analysed by

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost.	Name and Address of Manufacturer or Finisher as given by the Vendor.
1906.			<i>District of Nova Scotia, R. J. Waugh, Inspector.</i>			
Nov. 5	Ground Cinnamon....	27205	Larder, Hubley & Co., Barrington st., Halifax.	12 oz.	30c..	A. M. Piper, Jarvis st., Toronto.
" 6	"	27212	W. H. Schwartz & Son, Halifax, N.S.	12 "	27c..	Vendors... ..
			<i>District of New Brunswick, J. C. Ferguson, Inspector.</i>			
" 7	"	24284	Dearborn & Co., 93-95 Prince William st., St. John, N.B.	3 pkgs.	30c..	Vendors
" 8	"	24285	G. E. Barbour Co., Limited, 11-12 North Wharf, St. John, N.B.	3 "	30c..	"
			<i>District of Quebec, E. Beland, Inspector.</i>			
" 12	"	26040	Geo. Montreuil, 91 St. Paul.	1 lb.	40c..	Not known... ..
" 12	"	26042	Francois Bourret, 143 St. Paul.	1 "	40c..	N. Rioux et Cie.....
" 12	"	26044	T. P. Guy, 152 St. Paul....	1 "	40c..	" "
" 12	"	26045	F. H. Allarie, 347 St. Paul.	1 "	40c..	Not known.....
			<i>District of St. Hyacinthe, J. C. Rouleau, Inspector.</i>			
" 7	"	583	Godreau & Stevens, St. Jean.	1½ lb.	50c..	Not known.
" 9	"	584	H. F. Barlow, Magog.....	3 pkgs.	30c..	Lockerby Bros., Ltd., Montreal.
" 13	"	585	A. C. Trempe, Sorel.....	1 lb.	40c..	Not known.....
			<i>District of Montreal—J. J. Costigan, Inspector.</i>			
" 2	"	31625	S. H. Ewing & Son, King st., Montreal.	1½ lbs.	15c..	Vendors.....
" 2	"	31628	J. J. Duffy & Co., St. Paul st., Montreal.	1½ "	10c..	"
Dec. 12	"	31635	Theo. Lefebvre & Co., Gosford st., Montreal.	½ "	10c..	"
" 12	"	31638	J. V. Boudrias, Notre Dame st., Montreal.	½ "	9c..	"
			<i>District of Ottawa—A. E. Sanderson, Inspector.</i>			
Nov. 13	"	29382	G. Stewart, 237 Bank st., Ottawa.	1 lb.	40c..	Corcoran & Co., Wellington St., Ottawa.
" 14	"	29388	Geo. Thomas, 63 George st., Ottawa.	1 "	30c..	Major, Ottawa.....
" 15	"	29397	A. Boivin, 80 Queen st., Ottawa.	1 "	35c..	G. J. White, Ottawa..
			<i>District of Kingston—J. Hogan, Inspector</i>			
" 5	"	31005	J. Cullen, Princess st., Kingston.	1 lb.	40c..	Not known.....
" 6	"	31014	James McCulla, Montreal st., Kingston.	1 "	50c..	Pure Gold, Toronto...
" 6	"	31016	P. A. Haffner, Montreal st., Kingston.	1 "	30c..	Robertson & Nicolle..

SESSIONAL PAPER No. 14
the Laboratory of the Inland Revenue Department.

Inspector's Report.	RESULTS OF ANALYSIS.			Appearance under Microscope.	Remarks.
	Ash.				
	Soluble.	In- soluble.	Total.		
Sample taken from bulk... ..	1·15	1·55	2·70	No foreign tissues.	
Sample taken from box about to be shipped from factory.	0·80	2·75	3·55	" "	
Labelled absolutely pure Cin- namon. We guarantee the contents of this package.	1·90	3·55	5·45	No foreign tissues.	
Labelled strictly pure. Acorn brand. Maritime Spice and Coffee Mills, &c.	0·5	2·85	3·35	" "	
.....	0·60	4·75	5·35	No foreign tissues.	
.....	0·60	2·00	2·60	" "	
.....	0·70	2·00	2·70	" "	
.....	1·00	4·50	5·50	Contains foreign starch in small amount.	
Taken out of a 10 lb. drawer on shelf.	0·85	6·65	7·50	No foreign tissues.	Ash is too high percentage
Box marked pure ground Cassia.	0·65	4·20	4·85	" "	Plainly labelled as Cassia.
Taken out of a 10 lb. drawer on shelf.	1·85	5·40	7·25	" "	Ash is too high percentage
Taken at factory from stock...	0·85	6·00	6·85	No foreign tissnes.	Ash percentage too high.
" " ..	0·85	3·60	4·45	" "	
Sample collected at factory....	0·95	6·25	7·20	" "	Ash too high.
" "	0·75	5·85	6·60	" "	
Taken from bulk	1·00	2·60	3·60	No foreign tissues.	
"	1·11	3·15	4·26	" "	
"	1·00	3·40	4·40	" "	
.....	0·95	5·30	6·35	No foreign tissues.	Ash too high.
.....	0·95	3·45	4·40	" "	
.....	0·85	3·55	4·40	" "	

RECORD of Samples of Ground Cinnamon—Analysed by

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.
1906.			<i>District of Toronto—T. Kidd, Acting Inspector.</i>			
Nov. 14	"	30221	Benson Bros., Guelph, Ont.	$\frac{1}{2}$ lb.	25c..	Todhunter & Mitchell, Toronto.
" 15	"	30226	J. F. Moorish, 237 Yonge st., Toronto.	$\frac{1}{2}$ "	25c..	" " "
" 19	"	30232	Kidd & Co., Athlone, Ad-gala, Simcoe Co.	6 ozs.	15c..	F. F. Dalley & Co., Hamilton.
			<i>District of London, T. Kidd, Inspector.</i>			
Nov. 2.	Ground Cinnamon	30197	Geo. H. Nairen, Windsor, Ont.	$\frac{3}{4}$ lb.	30c..	Canada Spice and Grocery Co., London Ont.
" 7.	"	30209	Cardino Bros., Seaforth, Ont.	$\frac{1}{2}$ "	20c..	A. M. Smith & Co, London, Ont.
" 8.	"	30215	Richard Smith, Seaforth, Ont.	$\frac{1}{2}$ "	20c..	Todhunter & Mitchell, Toronto.
			<i>District of Manitoba, W. M. Conklin, Inspector.</i>			
Nov. 8.	Ground Cinnamon	25905	Murdoch & Wilson, Virden	$\frac{1}{2}$ lb.	25c..	Not known.....
" 8.	"	25908	Wm. Muir, Brandon.....	$\frac{1}{2}$ "	20c..	Hamilton Coffee and Spice Co.
" 9.	"	25912	The T. A. Garland Co., Portage la Prairie.	$\frac{1}{2}$ "	20c..	Eby, Blain & Co., Toronto.
			<i>District of British Columbia, E. B. Parkinson, Inspector.</i>			
Nov. 9.	Ground Cinnamon	28186	The Empress Manufactur-ing Co., Ltd., Vancouver, B.C.	3 tins,	20c..	Vendors.....
" 10.	"	28192	H. A. Howell, Granville St., Vancouver, B.C.	$\frac{3}{4}$ lb.	60c..	The Pioneer Coffee and Spice Mills, Victoria, B.C.
Nov. 12	Ground Cinnamon	28197	Hudson's Bay Co., Whole-sale, Water St., Vancou-ver, B.C.	3 tins,	20c..	Wm. Braid & Co., Van-couver, B.C.

NOTE.—In examining these samples microscopically an endeavour was made to distinguish Cinnamon from Cassia by certain botanical characters supposed to be peculiar to each; but no absolutely conclusive judgment could be rendered on the subject, the aforesaid characters being of insufficient constancy.

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the Laboratory of the Inland Revenue Department—*Concluded.*

Inspector's Report.	RESULTS OF ANALYSIS.			Appearance under Microscope.	Remarks.
	Ash.				
	Soluble.	In- soluble.	Total.		
.....	0·90	2·25	3·15	No foreign tissues.	
.....	0·75	2·00	2·75	" "	
Branded pure.. ..	0·75	3·15	3·90	" "	Plainly labelled 'Cassia.'
.....					
Branded Pure spice.....	1·00	3·15	4·15	No foreign tissues.	Plainly labelled 'Cassia.'
.....	0·75	2·50	3·25	" ..	
.....	0·80	2·25	3·05	" ..	
.....					
.....	2·15	3·25	5·40	No foreign tissues.	
.....	0·60	2·15	2·75	" ..	
.....	0·85	2·65	3·50	" ..	
.....					
Purchased at the factory, Em- press brand; Empress brand coffee, spices and extracts always reliable.	0·80	1·60	2·40	No foreign tissues.	
Black cinnamon	0·85	2·55	3·40	" ..	
.....					
Imperial brand, milled by the new process, from the finest selected stock. Packed ex- cessly for the best family use. Full strength, full weight and finest quality. Selected stock, put up ex- cessly for Hudson Bay Co., Vancouver.	1·10	2·80	3·90	" ..	

As to colour, a standard was prepared from a sample of the best obtainable cinnamon bark, and the opinions expressed have reference to this, as the normal colour for cinnamon.

ALP. LEMOINE.

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APPENDIX E.

BULLETIN No. 139—FERTILIZERS AS SOLD 1907.

OTTAWA, July 25, 1907.

W. J. GERALD, Esq.,

Deputy Minister of Inland Revenue.

SIR,—I have the honour to submit a report upon 107 samples of Fertilizers, purchased by our own Inspectors, and submitted to analysis for the purpose of ascertaining how far the articles sold are in conformity with the guarantee of the manufacturer.

Great difficulty has always been found in identifying with certainty the sample sold, with the corresponding article as guaranteed. The retail vendor is frequently ignorant of the registered name; and he is satisfied to sell as 'Ground Bone' an article which may be registered as 'Bone Flour,' 'Bone Meal,' 'Fine Ground Bone' with or without other distinguishing words. It is evident that without satisfactory proof of identity, it becomes impossible to speak with assurance of the conformity of the sample to a standard. The following classification of the samples now reported, is offered subject to limitations just mentioned.

Fully identified and up to guarantee.....	62 samples
Doubtfully identified and up to guarantee.....	18 "
" " and below ".....	3 "
Apparently not registered.....	24 "
	<hr/> 107

The samples classified as 'below guarantee,' are the following :—

No. 30371—Bone Meal, manufactured by W. Harris & Co., Toronto.

The sample in question was obtained at the factory, and shows a value of \$24.30 as compared with \$33.69 shown (on same scale) by the sample registered. It is noteworthy, however, that no explicit guarantee accompanied either of these samples; and comparison can only be made with the Standard deposited with the Department, as required by the Fertilizers Act. It is no unusual thing for a standard sample to possess a value greatly above the minimum value guaranteed by the manufacturer; and to require every sample sold to reach the value possessed by the manufacturer's sample deposited, would result in condemnation of a very large percentage of all fertilizers sold. Nor would it be just to the manufacturer, who sells on the basis of a plainly printed guarantee, which may be considerably below actual value, and all the purchaser has any right to do, is to require him to live up to this guarantee. The fault, in the present case, is the selling without such explicit guarantee; a fault, however, which cannot be held to justify us in substituting for such guarantee, the standard sample deposited here, and requiring the manufacturer to live up to such standard. The difficulty met here arises out of imperfections in our Fertilizer Act; and it would not, I conceive, be just to press the case against the manufacturer of No. 30371.

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No. 32446—*High Grade Potash*—American Agricultural & Chemical Co., Buffalo.

This brand is guaranteed to contain 10 per cent of potash. The sample analysed contained only 4.44 per cent. The standard sample deposited here contained 10.34 per cent of potash. This sample was registered as *High Grade Potash Compound*, No. 1946. Sample 32446 is sold as *High Grade Potash*, without the word 'Compound.' The name of the manufacturer, would probably be held to sufficiently identify the brand, as sold, with the brand, as registered; but as this is only *probable*, I am inclined to use this case rather as an argument for improving our machinery of identification, than as a case for prosecution.

No. 29521—*Thomas Phosphate Powder*—The Anglo-Canadian Chemical Co., St. John, N.B.—Compare with standard No. 1961.

Nothing can be clearer than that efficient fertilizer inspection is only possible when assured identification of every sample sold makes reference to, and comparison with a registered standard easy and certain. This involves the affixing of a tag or label to every package sold. Such tag or label should carry a printed guarantee, together with the name of the brand, and of the manufacturer. It would further simplify identification if each brand were designated by a registered number.

There seems no reason why tags or labels of the kind described, should not be furnished by the Inland Revenue Department to manufacturers of fertilizers, on registration, and at a fixed price. The income so derived would constitute a fund to meet the expenses of carrying out the Fertilizer Act. Not only would the question of identification be solved in this way, but the other difficulty of knowing whether a fertilizer were registered or not, would be met at the same time.

The following list comprises those brands of fertilizers purchased by our Inspectors, which do not appear to be registered as required by the Act.

No.	Name.	Manufacturer.	Vendor.
487	Earliana General Fertilizer	E. St. Jacques.....	Pharmacie St. Hyacinthe.
27374	Orchard Brand.....	Pidgeon Fert. Co., Windsor, N.S.	Capt. C. O. Allen, Kentville, N. S.
29522	Colombian Potato.....	The Col. Mortimer Co., New York.	Geo. F. Baird Co., Perth, N.B.
30373	Bone Dust.....	Amer. Agric. Co., Buffalo, N. Y.	J. A. Bruce, Hamilton.
30375	Blood Bone and Tankage..	Can. Packing Co., London.....	Same.
32087	Bone Meal.....	Sylvester Feed Co., Victoria, B.C.	Wm. Rennie Co., Victoria, B.C.
32250	Market Gardeners Special Fertilizer.....	Nichols Chem. Co., Capleton, P.Q.	Kenneth McDonald, Ottawa.
32440	Land Rock.....	R. C. Mosher, N.B.....	Chase Bros., } is not fertilizer Colborne. } under the Act.
32443	Lawn Fertilizer.....	W. A. Freeman, Hamilton.....	G. S. Thompson, Cobourg.
32445	Plaster.....	Not known.....	E. A. Duncan, } is not fertilizer Cobourg. } under the Act.
32513	Eureka.....	Fertilizer Co., Buckingham.....	R. J. Latimer, Montreal.
33221	Lawn Fertilizer.....	W. A. Freeman, Hamilton.....	S. L. Taylor, Brampton.
33267	Lawn Fertilizer.....	Wm. Rennie Co., Toronto.....	Same.
33268	Farm and Garden	" ".....	"
33269	Freeman's.....	W. A. Freeman, Hamilton..	Steele Briggs & Co., Toronto.
33271	Tankage.....	Wm. Davies & Co., Toronto.....	Same.
33272	".....	Park Blackwell Co., Toronto.....	"
33273	General.....	Western Fertilizer Co., Toronto...	"
33274	Bone and Potash.....	" ".....	"
33275	Tankage Fertilizer.....	Fowlers Can. Co., Hamilton.....	"
33276	Flower Food Fertilizer....	W. A. Freeman, Hamilton..	Steele Briggs Co., Hamilton.
33277	Plant Food.....	W. M. Rennie, Toronto.....	C. Stock & Son, Brampton.
33279	Bone and Potash Fertilizer	Western Fertilizer Co., Toronto...	Same (like 33274)
33280	General Fertilizer.....	" ".....	" (like 33273)

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The 24 samples in question appear to represent 22 distinct brands. Of this number, two (Nos. 32440 and 32445) are not fertilizers, under the Act, since they do not contain phosphoric acid, nitrogen or potash. It is possible that some of these samples may be registered brands, but sold under names which do not suffice for their certain identification. This inference seems justified by the fact that several of the manufacturers named, have registered one or more brands, and are not likely to have, willingly, put unregistered brands on the market.

In the cases of samples 33273 and 33274 (also 33279 and 33280, which appear to be the same brands), it is worthy of remark that articles of very low value indeed are put on the market as chemical fertilizers. This fact, together with the fact of their non-registration, would appear to be sufficient ground for restrictive legal action.

Finally, I would respectfully draw your attention to the need of revising and improving our Fertilizer Act; so as to make it truly efficient in protecting the agricultural interests of Canada; and would recommend the publication of this report, with accompanying tables, as Bulletin No. 139.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,

Acting Chief Analyst.

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1897.			<i>District of Nova Scotia.— R. J. Waugh, Inspector.</i>		
May 14	Victor Guano.....	27366	Provincial Chemical Co., St. John, N.B.	J. H. Longmire & Sons, Bridgetown, N. S.....	1986..
" 14	Potato Fertilizer.....	27367	Provincial Chemical Co., St. John, N.B.	J. H. Longmire & Sons, Bridgetown, N.S.....	1985..
" 14	Potato Manure.....	27368	Swift Lowell Fertilizer Co., Boston, Mass.	N. E. Chute, Bridgetown, N.S.....	1956..
" 14	Animal Brand	27369	Swift Lowell Fertilizer Co., Boston, Mass.	N. E. Chute, Bridgetown, N.S.....	1955..
" 15	XXX Fish and Potash Brand.	27370	Russia Cement Co., Gloces- ter, Mass.	G. N. Ray, Middletown, N.S.....	1893..
" 15	Market Garden and Po- tato Brand.	27371	Russia Cement Co., Gloces- ter, Mass.	G. N. Ray, Middletown, N.S.....	1894..
" 16	Six per cent Fertilizer...	27372	Bowker, Boston, Mass.	G. F. Roy, Kentville, N.S.....	1922..
" 16	Potato Manure.....	27373	Swift's Lowell Fertilizer Co., Boston. Mass.	G. F. Roy, Kentville, N.S.....	1956..
" 16	Orchard Brand	27374	Pidgeon Fertilizer Co., Windsor, N.S.	Capt. C. O. Allen, Kent- ville, N.S.....	.....
" 17	Stockbridge Manure....	27375	Bowker Fertilizer Co., Bos- ton, Mass.	F. W. Woodman, Wolf- ville, N.S.....	1930..
" 17	Square Brand.....	27376	Bowker Fertilizer Co., Bos- ton, Mass.	F. W. Woodman, Wolf- ville, N.S.....	1917..
" 17	'Swift's Animal Brand' for all crops.	27377	Swift's Lowell Fertilizer Co., Boston, Mass.	R. E. Harris & Son, Wolf- ville, N.S.....	1955..
" 23	Pctato Special.....	27378	American Agricultural Chemical Co., New York.	E. M. Walker, Dart- mouth, N.S.....	2033..
			<i>District of Prince Edward Island.—T. Moore, Inspector.</i>		
" 20	Swift's Lowell Bone Fer- tilizer for Corn & Grain	31121	Swift Lowell Fertilizer Co., Boston, Mass.	Pool & Thompson, Monta- gue Bridge, P.E.I.....	1952..
" 20	Ceres Superphosphate, a Complete Fertilizer.	31122	Nova Scotia Fertilizer Co., Halifax, N.S.	R. E. Mutch, Charlotte- town, P.E.I.....	1980..
" 20	Bone and Potash.....	31123	Nova Scotia Fertilizer Co., Halifax, N.S.	R. E. Mutch, Charlotte- town, P.E.I....	1983..
			<i>District of New Brunswick.— J. C. Ferguson, Inspector.</i>		
April 17	Potato and Vegetable Phosphate.	24361	Bowker Fertilizer Co., Bos- ton, Mass.	D. J. Seely & Son, St. John, N. B.....	1915..
" 18	Swift's Potato Manure...	24362	Swift's Lowell Fertilizer Co., Boston, Mass.	P. Nase & Son, St. John, N.B.....	1956..
" 19	Reid's Superphosphate...	24363	Thos. Reid, St. John, N.B.	Thos. Reid, St. John, N. B.....	1990..
" 20	Special Potato Phosphate	24364	The Provincial Chemical Fertilizer Co., Ltd., St. John Co., (East) N.B.	The Provincial Chemical Fertilizer Co., Ltd., St. John, Co. (East) N.B....	1985..

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FERTILIZERS AS SOLD.

NITROGEN PER CENT.		RESULT OF ANALYSIS. PHOSPHORIC ACID—PER CENT.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
Total : including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, soluble.	Insoluble.	Total.	Total available.				
									\$ cts.	
2.10	2.55	4.55	3.73	2.12	10.40	8.28	4.76	12.27	22 10	Up to guaranteed value.
1.65	2.00	.....	.....	.....	7.00	.....	2.50	.....	.....	.....
2.18	2.65	4.70	2.73	1.57	9.00	7.43	6.52	11.99	22 75	Up to guarantee.
2.06	2.50	.....	.....	.....	8.00	.....	6.50	.....	.....	.....
1.60	1.94	3.25	4.75	2.00	10.00	8.00	5.57	8.99	20 74	" "
1.65	2.00	.....	.....	.....	8.00	7.00	4.00	.....	17 61	.....
2.27	2.75	4.70	5.03	4.24	13.95	9.73	4.45	11.20	24 61	" "
2.47	3.00	.....	.....	.....	10.00	8.00	4.00	.....	21 80	.....
2.35	2.86	1.50	6.70	6.70	15.00	8.20	2.56	8.99	21 73	" "
2.06	2.50	.....	.....	.....	12.00	9.00	2.25	.....	20 05	.....
2.07	2.52	3.00	7.18	3.87	14.05	10.18	4.58	12.74	24 28	" "
2.00	3.40	4.00	4.00	2.00	10.00	.....	5.00	.....	21 60	.....
1.15	1.39	2.25	4.00	4.15	10.40	6.25	8.43	14.54	20 69	" "
0.82	1.00	.....	.....	.....	7.00	6.00	6.00	.....	15 69	.....
1.79	2.18	3.95	3.55	2.60	10.10	7.50	5.92	7.26	21 43	" "
1.65	2.00	.....	.....	.....	8.00	7.00	4.00	.....	17 61	.....
0.10	0.13	4.25	2.45	1.30	8.00	6.70	7.25	13.18	15 78	Cannot be identified with any of the 5 brands registered by the Pidgeon Fertilizer Co. Not registered.
.....
2.92	3.55	3.10	4.53	3.32	10.95	7.62	8.89	11.08	28 52	Up to guarantee. No. 1930 is reg- istered as 'Stockbridge Special Complete Manure.' Hence identification is uncertain.
3.30	4.00	.....	.....	.....	7.00	6.00	10.00	.....	28 12	.....
1.61	1.95	6.05	4.02	2.24	12.31	10.07	2.28	11.15	20 11	Up to guarantee.
1.65	2.00	.....	.....	.....	7.00	6.00	2.00	.....	14 51	.....
2.24	2.72	5.95	3.98	4.67	14.60	9.93	4.68	9.95	25 22	" "
2.47	3.00	.....	.....	.....	10.00	8.00	4.00	.....	21 80	.....
2.35	2.86	5.55	3.08	2.57	11.20	8.63	5.44	14.74	24.16	Up to guarantee. No. 2033 is reg- istered as 'Standard Special for Potatoes.' Hence identi- fication is uncertain.
2.06	2.50	5.00	3.00	2.00	10.00	8.00	3.00	.....	19.90	.....
.....
2.24	2.72	4.05	4.73	4.35	13.13	8.78	3.83	5.12	22 81	Up to guarantee, but identifica- tion uncertain; No. 1952 is reg- istered without the words 'for corn and grain.'
1.65	2.00	.....	.....	.....	9.00	8.00	3.00	.....	17 71	.....
1.54	1.83	8.25	1.73	1.77	11.75	9.98	4.23	12.20	21 80	Up to guarantee.
1.65	2.00	.....	.....	.....	7.00	.....	2.00	.....	.....	.....
2.83	3.43	.....	13.85	10.35	24.20	13.85	3.03	10.40	30 99	Standard 1983, is registered un- der the name, 'Blood, Bone and Potash.' Is up to this guaran- tee; but identification is uncer- tain.
1.65	2.00	.....	.....	.....	7.00	.....	4.00	.....	.....	.....
.....
6.02	7.31	.....	6.40	3.90	10.30	6.40	2.47	9.53	31 14	Up to guarantee.
1.65	2.00	.....	.....	.....	9.00	8.00	2.00	.....	16 71	.....
1.37	1.67	4.05	3.50	2.10	9.65	7.55	7.32	8.00	21 32	Up to guarantee, but identifica- tion uncertain. No. 1956 is reg- istered as 'Swift's Lowell Po- tato Manure.'
1.65	2.00	.....	.....	.....	8.00	7.00	4.00	.....	17 61	.....
2.74	3.33	1.85	7.75	1.55	11.15	9.60	2.48	20.32	23 01	Nearly up to value of standard sample, whose analysis is quot- ed. Up to guarantee.
4.41	5.35	2.16	3.41	4.90	10.47	5.57	2.00	5.25	24 80	.....
3.33	4.05	6.50	0.74	1.20	8.44	7.24	3.53	6.57	28 83	Up to guarantee, but identifica- tion uncertain. No. 1985 is reg- istered simply as 'Potato Phos- phate.'
2.06	2.50	8.00	6.50

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RECORD OF SAMPLES OF

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of New Brunswick—</i> Con.		
" 22	New England Peerless Fertilizer.	24365	New England Fertilizer Co. Boston, Mass.	P. Nase, Main st., St. John, N.B.	1949..
" 23	Farm and Garden Phosphate.	24366	Bowker Fertilizer Co., Boston, Mass.	W. B. McKay & Co., Sussex, N.B.	1919..
May 9	Climax Phosphate.....	24368	The American Agricultural Chemical Co., New York.	F. McMurchie, St. Stephen, N.B.	2027...
" 9	Bradley's XL Superphosphate of Lime.	29519	The American Agricultural Chemical Co., New York.	Hy. E. Hill, St. Stephen, N.B.	2007..
" 14	Potato Manure.....	29520	The American Agricultural Chemical Co., New York.	Solomon Perley, Woodstock, N.B.	2033...
" 15	Thomas Phosphate Powder.	29521	The Anglo-Canadian Chemical Co., St. John, N.B.	J. W. James, Andover, N.B.	1961...
" 15	Columbian Potato.....	29522	The Col. Mortimer Co., New York.	Geo. F. Baird Co., Ltd., Perth, N.B.	.....
May 15	Potato Phosphate.....	29523	The Nova Scotia Fertilizer Co., Halifax, N.S.	DeWitt and Hefferman, Perth, N.B.	1982
April 25	Pacific Potato Special...	24367	American Agricultural Co., New York.	Toombs & Son, Moncton, N.B.	2023
			<i>District of Quebec—E. Béland, Inspector.</i>		
April 19	'Victor'.....	26230	Capleton Chemical Fertilizer Co.	Clovis Mercier, St. Marie, Beauce.	1994
" 19	'Phosphate No. 1.'...	26234	Nichols Chemical Co., Capleton, P.Q.	Geo. Gagnon, St. Marie, Beauce.	1992
" 19	'Thomas Phosphate Powder.'	26235	H. O. E. Albert, London, England.	Geo. Gagnon, St. Marie, Beauce.	1971
" 19	Victor	26236	Nichols Chemical Co., Capleton, P.Q.	Geo. Gagnon, St. Marie, Beauce.	1994
" 19	Sure Crop 6 per cent Potato Fertilizer.....	26238	Bowker & Co., New York.	Geo. Beaudoin, St Elzear, Beauce.	1922
" 19	Sure Crop Bowker's 6 per cent Potato Fertilizer..	26239	" " ..	J. Berthiaume, St. Elzear, Beauce.	1922
" 19	Sure Crop	26240	" " ..	J. Berthiaume, St. Elzear, Beauce.	1920
			<i>District of St. Hyacinthe—</i> <i>J. C. Rouleau, Inspector.</i>		
May 3	Corn Fertilizer.....	484	Bowker Fertilizer Co., New York.	D. E. Taylor, Kingsley Road, Richmond.	1916
" 7	6 per cent Potash	485	" " ..	A. J. Brown, Lawrenceville.	1922
" 13	Victor Guano.....	486	Provincial Chemical Fertilizer Co., St. John, N.B.	Chas. Racicot, St. Hyacinthe.	1986
" 17	Earliana General Fertilizer.	487	T. St. Jacques.....	Pharmacie St. Hyacinthe, St. Hyacinthe.	.....
" 1	'Sure Crop Phosphate'..	480	Bowker Fertilizer Co., New York.	G. N. Salisbury, Abbots Corner.	1920
May 1	Potato and Vegetable Phosphate.	481	" " ..	G. N. Salisbury, Abbots Corner.	1915

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FERTILIZERS AS SOLD.

NITROGEN PER CENT.		RESULTS OF ANALYSIS. PHOSPHORIC ACID—PER CENT.								Relative value per ton of 2,000 lbs.	Remarks.
Total: including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or ci- trate, soluble.	Insoluble.	Total.	Total available.	Potash.	Moisture.			
										\$ cts.	
1.12	1.36	1.95	4.72	2.25	8.92	6.67	1.67	9.34	13 69	Up to guarantee.	
0.82	1.00	.....	.....	1.00	8.00	7.00	1.00	.....	11 79	
1.99	2.41	5.35	3.05	3.70	12.10	8.40	2.11	14.48	19 76	" "	
1.65	2.00	.....	.....	.....	9.00	8.00	2.00	.....	16 71	
0.81	0.99	4.75	5.18	3.07	13.00	9.93	2.95	17.38	18 02	Up to guarantee, but identifica-	
1.03	1.25	6.00	2.00	2.00	10.00	8.00	2.00	.....	15 50	tion uncertain. No. 2027 is reg-
										istered as 'Quinnipiac Climax	
										Phosphate, for all crops.'	
1.88	2.28	5.10	3.17	3.70	11.27	8.57	1.71	16.34	19 18	Up to guarantee.	
2.06	2.50	5.00	3.00	2.00	10.00	8.00	1.50	.....	18 40	
3.28	3.98	2.75	3.24	2.10	8.59	5.99	10.67	11.16	29.32	Up to guarantee. No. 2033 is reg-	
2.06	2.50	5.00	3.00	2.00	10.00	8.00	3.00	.....	19 90	istered as 'StandardSpecial for
										for Potatoes.' Hence identifica-	
			9.21	5.87	15.08	9.21	.....	0.16	11 89	tion is uncertain.
			15.18	2.62	17.80	.....	.....	.....	16 00	Below guarantee; but identifica-
										tion is uncertain. No. 2039 is	
										registered as 'Ohlendorff's	
										ground basic slag.'	
1.18	1.43	3.20	1.14	3.12	7.46	4.34	3.16	16.23	12 90	Not registered.	
1.90	2.31	6.05	1.25	2.02	9.32	7.25	7.21	10.93	.....	Up to guarantee.
1.65	2.00	.....	.....	.....	7.00	.....	4.00	.....	.....
2.04	2.48	4.70	3.96	3.45	11.71	8.66	3.67	17.23	21 64	"	
2.06	2.50	5.00	3.00	2.00	10.00	8.00	3.00	.....	19 90	
2.10	2.55	4.40	2.80	5.66	12.86	7.20	2.64	9.54	19 84	Up to guarantee.	
2.00	.....	.....	.....	.....	7.00	.....	3.00	.....	.....
0.77	0.93	2.33	5.20	2.65	10.18	7.53	trace	5.12	15 38	"	
					10.00	.....	.....	.....	.....
			11.64	5.48	17.12	11.64	.....	0.14	14 45	"
					17.00	.....	.....	.....	.....
1.05	1.27	3.04	3.80	3.10	9.94	6.84	2.57	8.60	14 90	"	
2.00	.....	.....	.....	.....	7.00	.....	3.00	.....	.....
1.33	1.61	4.59	3.55	0.53	8.67	8.14	5.64	10.77	19.73	"	
0.82	1.00	.....	.....	.....	7.00	6.00	6.00	.....	17 59	
1.75	2.12	4.38	3.41	0.85	8.64	7.79	3.84	13.42	19 05	"	
0.82	1.00	.....	.....	.....	7.00	6.00	6.00	.....	17 59	
1.01	1.22	4.97	3.32	0.83	9.12	8.29	3.12	14.04	16 42	Up to guarantee. No. 1,920 is	
0.82	1.00	.....	.....	.....	9.00	8.00	2.00	.....	13 92	registered as 'Bowker's Sure
										Crop Phosphate.' Hence iden-	
										tification uncertain.	
1.89	2.29	3.83	3.69	2.28	9.80	7.52	2.01	14.30	17 78	Up to guarantee. No. 1,916 is	
1.65	2.00	.....	.....	.....	9.00	8.00	2.00	.....	.....	registered as 'Bowker's Corn
										Phosphate.' Hence identifi-	
										cation uncertain.	
1.26	1.53	4.27	2.64	2.02	8.93	6.91	5.44	11.17	18 36	Up to guarantee. No. 1,922 is	
0.82	1.00	.....	.....	.....	7.00	6.00	6.00	.....	17 59	registered as 'Bowker's 6 p.c.
										Potato Fertilizer.' Hence iden-	
										tification. uncertain.	
1.54	1.87	4.56	8.90	1.97	15.43	13.46	1.87	11.35	22 96	Up to guarantee.	
1.65	2.00	.....	.....	.....	7.00	.....	2.50	.....	.....
4.27	5.18	0.40	3.76	0.49	4.67	4.16	7.34	1.66	26 62	Not registered.	
1.26	1.53	5.79	2.03	1.98	9.80	7.82	4.87	13.05	18 93	Up to guarantee.	
0.82	1.00	.....	.....	.....	9.00	8.00	2.00	.....	13 92	
1.96	2.38	5.39	3.41	2.17	10.97	8.80	4.79	12.36	22 32	"	
1.65	2.00	.....	.....	.....	9.00	8.00	2.00	.....	16 71	

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of St. Hyacinthe—Con.</i>		
May 1	'Tucker's Improved Bone Phosphate' for all crops	482	American Agricultural Chemical Co., N.Y.	H. H. Miner, Dunham....	2021
			<i>District of Montreal—J. J. Costigan, Inspector.</i>		
April 30	Celery and Vegetable ...	32507	W. A. Freeman & Co., Hamilton.	Wm. Ewing Co., Montreal.	1933
" 30	Sure Growth.....	32508	" " ..	" " ..	1931
" 30	Potato Manure	32509	" " ..	" " ..	1935
" 30	Tobacco Manure....	32510	" " ..	" " ..	1937
" 30	Royal Canadian.....	32511	Capelton Chemical Co....	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	1993
" 30	Victor	32512	Fertilizer Co., Buckingham	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	1994
" 30	Eureka	32513	" " ..	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	.....
" 30	No. 1.....	32514	" " ..	R. J. Latimer & Co., 21 St. Antoine St., Montreal.	1992
May 10	Vermont	32515	Bowker Fertilizer Co.....	O. Chevalier, Joliette, P.Q.	1913
" 14	Corn Phosphate	32516	"	Thos. Cogland, Hurdmans, P.Q.	1916
" 14	Sure Crop.....	32517	"	Ehos. Cogland, Hurdmans, P.Q.	1920
" 14	'Bradley's B'.....	32518	American Agricultural Chemical Co	Wm. Anderson, Hurdmans, P.Q.	1943
			<i>District of Ottawa—E. Belisle, General Inspector.</i>		
May 31	Royal Fertilizer.....	32243	Standard Fertilizer and Chemical Co., Smith's Falls.	Manufacturers.....	2001
" 31	Victor Fertilizer..	32245	Capelton Chemical and Fertilizer Co., Buckingham, Que.	A. E. Cameron, Brockville.	1994
" 31	Bradley's Sea Fowl	32246	American Agricultural Chemical Co., Buffalo, N.Y.	A. Brown & Sons, Brockville.	1943
" 31	Potato Fertilizer.....	32247	" " ..	" " ..	2033
" 31	Complete Manure.....	32248	" " ..	" " ..	1906
June 4	Market Gardeners Special Fertilizer.	32250	The Nichols Chemical Co., Capelton, P.Q.	Kenneth McDonald, Market Square, Ottawa, Ont.	.....
			<i>District of Kingston—Jas Hogan, Inspector.</i>		
April 22	Potato Manure	32439	W. A. Freeman, Hamilton.	W. C. Peters, Brock St., Kingston.	1935
" 23	Land Rock.....	32440	R. C. Mosher, N.B.....	Chase Bros., Colborne.....

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FERTILIZERS AS SOLD.

NITROGEN PER CENT.		RESULT OF ANALYSIS, PHOSPHORIC ACID—PER CENT.									Remarks.
Total : including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or ci- trate, soluble.	Insoluble.	Total.	Total available.	Potash.	Moisture.	Relative value per ton of 2,000 lbs.		
1.54 1.03	1.87 1.25	6.95 6.00	2.46 2.00	1.85 2.00	11.26 10.00	9.41 8.00	2.36 2.00	15.58	19.20 15.50	Up to guarantee. No. 2021 is registered as 'Bowker's Pot- ash Bone Phosphate.' Hence identification uncertain.	
4.13 4.12 2.52 2.88 3.52 2.47 3.92 2.47 2.87 3.30 1.54 2.00 1.89	5.01 5.00 3.06 3.50 4.28 3.00 4.76 3.00 3.48 4.00 1.87 2.29	1.48 1.51 1.08 2.68 5.02 2.87 2.87 1.90	4.60 4.10 5.19 5.19 3.29 4.31 3.43	1.51 4.41 2.92 1.61 1.34 3.97 1.58	7.59 9.00 10.02 8.00 9.19 8.00 9.48 7.00 9.65 9.00 11.15 7.00 6.91	6.08 5.61 6.27 7.87 8.31 7.18 5.33	6.50 5.00 3.30 3.00 5.44 5.00 2.98 4.00 4.44 5.00 2.65 3.00 3.31	14.53 14.85 10.23 10.31 8.75 9.90 5.17	27.83 19.51 25.29 25.72 24.24 17.26 16.26	Up to guarantee. " " " " " " " " " " Not registered.	
0.84 2.52 2.47 1.87 1.65 1.33 0.82 1.61 2.06	1.02 3.06 3.00 2.29 2.00 1.61 1.00 1.95 2.50	2.50 5.64 6.67 4.73 5.87 6.00	5.88 3.34 1.75 2.31 2.14 2.00	2.72 1.54 1.86 1.56 1.68 1.00	11.10 10.00 10.52 10.00 10.28 9.00 8.60 9.00 9.69 9.00	8.38 8.98 8.00 8.42 8.00 7.04 8.00 8.01 8.00	0.33 5.04 4.00 2.01 2.00 2.23 2.00 4.48 1.50	7.20 14.73 14.29 12.77 10.49	13.47 24.51 18.86 15.44 13.92 19.87 18.20	Up to guarantee. " " " " Up to guarantee. No. 1943 is registered as 'Bradley's B. D. Sea Fowl Guano.' Hence identification is uncertain.	
2.78 1.65 1.71 2.00 1.94 2.06 2.26 2.06 3.37 2.40 3.06 2.34 2.47	3.38 2.00 2.07 2.35 2.50 2.74 2.50 4.09 3.00 3.71 2.84 3.00	12.12 4.23 6.06 6.00 5.08 5.00 5.56 5.00 7.87 3.56	4.30 3.62 3.09 2.00 3.32 3.00 3.42 1.00 2.31 4.29	2.10 1.72 2.07 1.00 2.25 2.00 1.88 1.00 3.27 3.42	18.52 10.00 10.52 10.00 10.28 9.00 8.60 9.00 9.69 9.00 10.86 7.00 13.45 11.27 8.00 Trace	16.42 8.00 8.42 8.00 7.04 8.00 8.01 8.00 8.98 6.00 10.18 7.85	5.18 3.00 5.06 3.00 2.62 1.50 5.99 3.00 12.41 10.00 5.62 4.17 5.00 Trace	10.00 6.15 17.07 13.64 11.76 6.85 6.36 7.66	34.54 18.01 20.45 20.51 18.20 22.10 19.90 34.87 25.56 28.99 22.14	Up to guarantee. " " " " Up to guarantee. No. 2033 is registered as 'Standard Special for Potatoes.' Hence identi- fication uncertain. Up to guarantee. No. 1906 is registered as 'A. A. C. Co., Aroostook Complete Manure.' Hence identification uncertain. Not registered. Up to guarantee. Not registered. This substance is not technically a chemical fertilizer and should not have been purchased.	

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RECORD OF SAMPLES OF

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of Kingston—Con.</i>		
" 24	Potato Manure	32441	W. A. Freeman, Hamilton.	G. S. Thompson, Cobourg.	1935
" 24	Sure Growth	32442	" " . .	" " . .	1931
" 24	Lawn Fertilizer.	32443	" " . .	" " . .	.....
" 24	Bone Potash.	32444	" " . .	" " . .	1932
" 24	Plaster.	32445	Not known.	E. A. Duncan, Cobourg. . . . .	.....
" 25	High Grade Potash.	32446	American Agricultural and Chemical Co., Buffalo, N.Y.	G. Mathews, Trenton.	1946
			<i>District of Toronto—H. J. Dager, Inspector.</i>		
May 11	Lawn Fertilizer.	33267	Wm. Rennie & Co., Toronto.	Wm. Rennie & Co., Toronto.	.....
" 11	Farm and Garden.	33268	" " . .	" " . .	.....
" 11	Freeman's.	33269	Wm. A. Freeman, Hamilton.	Steel, Briggs & Co., Toronto.	.....
" 13	'Conc Tankage'	33270	Wm. Davies & Co., Toronto.	Wm. Davies Co., Toronto.	1891
" 13	'Tankage'	33271	" " . .	" " . .	.....
" 13	"	33272	Park, Blackwell Co., Toronto.	Park, Blackwell Co., Toronto.	.....
" 13	'General'	33273	Western Fertilizer Co., Toronto.	Western Fertilizer Co., Toronto.	.....
" 13	Bone and Potash.	33274	" " . .	" " . .	.....
" 22	'Tankage Fertilizer'	33275	Fowler's Canadian Co., Hamilton.	Fowler's Canadian Co., Hamilton.	.....
" 22	Flower Food Fertilizer.	33276	Wm. A. Freeman, Hamilton.	Steel, Briggs Co., Hamilton.	.....
June 18	Lawn Fertilizer.	33221	" " . .	T. L. Taylor, Brampton, Ont.	.....
" 18	Plant Food.	33277	Wm. Rennie, Toronto, Ont	C. Stork & Son, Brampton, Ont.	.....
" 18	Bone Meal.	33278	W. A. Freeman, Hamilton, Ont.	Dale Estate, Brampton, Ont.	1938
" 20	Bone and Potash Fertilizer.	33279	Western Fertilizer Co., Toronto, Ont.	Western Fertilizer Co., Toronto.	.....
" 20	General Fertilizer.	33280	" " . .	" " . .	.....
			<i>District of London—T. Kidd, Inspector.</i>		
May 8	Bone Flour.	30351	W. A. Freeman, Hamilton, Ontario.	Jas. Anson & Son, Guelph, Ont.	1938
" 9	Fertilizer (Harris H).	30354	W. Harris & Co., Danford Road, near Toronto, Ont.	J. A. Simmons, Toronto, Ont.	1997

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FERTILIZERS AS SOLD.

NITROGEN PER CENT.		RESULT OF ANALYSIS. PHOSPHORIC ACID—PER CENT.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
Total: including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, soluble.	Insoluble	Total.	Total available.				
									\$ cts.	
3.43	4.16	3.03	3.60	3.19	9.82	6.63	5.84	4.24	26 06	Up to guarantee.
2.47	3.00	.....	.....	.....	8.00	.....	5.00	.....	.....	.....
2.97	3.60	2.01	3.60	4.37	9.98	5.61	3.11	6.63	20 89	"
2.88	3.50	.....	.....	.....	8.00	.....	3.00	.....	.....	.....
2.88	3.49	4.12	2.70	4.65	11.47	6.82	3.41	9.84	22 51	Not registered.
3.14	5.81	1.75	4.26	3.68	9.69	6.01	6.91	5.27	25 17	Up to guarantee.
1.65	2.00	.....	.....	.....	9.00	.....	6.00	.....	.....	.....
Trace.	.....	.....	.....	.....	Trace.	.....	.....	6.52	.....	Not registered. See note to 32440.
2.43	2.95	5.07	2.75	3.33	11.15	7.82	4.44	6.28	22 81	Below guarantee in potash.
1.65	2.00	6.00	2.00	1.00	9.00	8.00	10.00	.....	25 31	.....
2.48	3.01	0.11	6.83	3.96	10.90	6.94	0.12	2.52	17 39	Not registered.
3.16	3.84	0.17	8.51	3.10	11.78	8.68	0.16	2.98	21 40	"
3.06	3.71	2.28	4.14	3.50	9.92	6.42	3.14	5.07	21 88	Not registered or incorrectly named by the vendor.
12.44	15.10	.....	.....	0.28	1.23	0.95	0.98	8.02	41 92	Up to guarantee. No. 1891 is registered as 'Toronto B.' Hence identification uncertain.
13.17	16.00	.....	.....	.....	.....	.....	.....	7.20	42 14	.....
8.17	9.92	0.27	6.95	3.68	10.90	7.22	0.27	6.56	35 48	Not registered or insufficiently defined by the vendor.
7.76	9.42	0.20	7.02	3.48	10.70	7.22	0.21	5.21	34 05	"
1.93	2.34	None.	None.	0.88	0.89	.	0.63	1.97	7 46	Not registered. Possesses no value to justify its being sold as a chemical fertilizer.
0.26	0.29	None.	0.54	1.03	1.62	0.54	0.77	0.57	2 57	"
7.72	9.37	0.37	7.13	1.82	9.32	7.50	0.29	6.14	33 83	Not registered.
4.87	5.91	1.60	3.44	2.41	7.46	5.04	2.92	1.96	25 91	"
1.80	2.17	9.82	2.56	4.10	16.48	12.38	0.47	8.85	22 42	"
2.88	3.47	Trace.	8.70	3.05	11.75	8.70	0.43	2.32	20 71	"
6.27	7.56	Trace.	10.62	7.55	18.17	10.62	0.14	5.83	34 15	Up to guarantee.
2.47	3.00	.....	.....	.....	20.00	.....	.....	.....	.....	.....
0.21	0.25	Trace.	1.70	1.85	3.55	1.70	1.37	1.00	4 51	Not registered. Has no value to warrant its being sold as a chemical fertilizer.
1.93	2.35	Trace.	2.08	1.69	3.77	2.08	1.63	2.15	10 99	Not registered.
4.95	6.01	0.17	12.96	2.65	15.78	13.13	0.21	1.96	32 30	Identification uncertain. No. 1938 is registered as 'Freeman's Pure Bone Meal.' Up to standard.
2.47	3.00	...	.....	.....	20.00	.....	.....	.....	.....	.....
6.39	7.76	0.11	8.39	2.53	11.03	8.50	0.08	5.13	31 93	Up to standard sample. Analysis of standard sample is quoted.
5.88	7.14	6.20	5.95	12.15	6.20	8.25	28 60	Up to guarantee.

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RECORDS OF SAMPLES OF

Date of Collection.	Designation.	No. of Sample.	Name and Address of Manufacturer.	Name and Address of Vendor.	Identified with Standard.
1907.			<i>District of London—Con.</i>		
May 10	Sure Growth..	30361	Wm. A. Freeman, Hamilton, Ont.	Steel, Briggs & Co., Toronto, Ont.	1931
" 15	Bone Meal..	30371	W. Harris & Co., Danford Road, near Toronto, Ont.	W. Harris & Co., Danford Road, near Toronto, Ont.	1996
" 15	Blood and Bone.....	30372	W. Harris & Co., Danford Road, near Toronto, Ont.	W. Harris & Co., Danford Road, near Toronto, Ont.	1997
" 16	Bone Dust.....	30373	American Agricultural Co., Buffalo, N.Y.	Jno. A. Bruce, Hamilton, Ont.	.....
" 16	Bone Meal..	30374	W. A. Freeman, Hamilton, Ont.	W. A. Freeman, Hamilton, Ont.	1938
" 22	Blood, Bone and Tankage.	30375	Canadian Packing Co., London, Ont.	Canadian Packing Co., London, Ont.	.....
			<i>District of British Columbia—E. B. Parkinson, Insp.</i>		
" 13	Nitrate of Soda.	32086	The Victoria Chemical Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	2045
" 13	Bone Meal.....	32087	Sylvester Feed Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	1876
" 13	'A' Fertilizer.	32088	The Victoria Chemical Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	2040
" 13	'B' "	32089	The Victoria Chemical Co., Victoria, B.C.	Wm. Rennie Co., Hastings St., Victoria, B.C.	2041
" 13	Muriate of Potash. . . .	32090	The Victoria Chemical Co., Victoria, B.C.	W. J. Henry, Westminster Road, Vancouver, B.C.	2048
" 13	Nitrate of Soda.	32091	The Victoria Chemical Co., Victoria, B.C.	W. J. Henry, Westminster Road, Vancouver, B.C.	2045
" 13	'B' Fertilizer.....	32092	The Victoria Chemical Co., Victoria, B.C.	M. J. Henry, Vancouver, B.C.	2041
" 14	Fish Guano	32093	Fraser River Oil and Guano Co., Fraser River, B.C.	Brackman & Kerr Milling Co., Vancouver, B.C.	1884
" 14	'B' Fertilizer.	32094	The Victoria Chemical Co., Victoria, B.C.	Brackman & Kerr Milling Co., Vancouver, B.C.	2041
" 4	'B' "	32095	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2041
" 4	'C' "	32096	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2042
" 4	Superphosphate.....	32097	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2044
" 4	Sulphate of Potash. . . .	32098	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2047
" 4	Muriate of Potash. . . .	32099	The Victoria Chemical Co., Victoria, B.C.	Brown Bros., Vancouver, B.C.	2048
" 4	Bone Meal.....	32100	P. Burns Co., Vancouver, B.C.	Brackman & Kerr Milling Co., Vancouver, B.C.	1883

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FERTILIZERS AS SOLD.

NITROGEN PER CENT.		RESULT OF ANALYSIS. PHOSPHORIC ACID—PER CENT.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	Remarks.
Total; including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Reverted or citrate, Soluble.	Insoluble.	Total.	Total available.				
									\$ cts.	
3.46	4.20	1.90	4.12	4.33	10.35	6.02	2.93	3.81	22.81	Up to guarantee.
2.88	3.50	.....	.....	.....	8.00	.....	3.00	.....	.....
3.37	4.09	Trace.	9.64	9.49	19.13	9.64	0.06	5.72	24.30	Not up to standard sample. An-
4.76	5.84	.....	15.04	6.39	21.43	15.04	.....	4.26	33.69	alysis of standard sample is
										quoted.
6.28	7.62	0.17	7.67	2.96	10.80	7.84	0.24	4.64	29.87	May be 'Fertilizer H,' No. 1997
5.88	7.14	.....	6.20	5.95	12.15	6.20	.....	8.25	28.60	—but cannot identify with
										certainty. If so is up to
										standard.
3.45	4.19	0.38	4.27	14.36	19.01	4.65	0.10	4.84	20.60	Am. Agr. Co., Buffalo, register
										10 brands, but no brand bears
										the name 'Bone Dust'—under
										which this sample is sold.
4.58	5.56	0.06	8.85	10.59	19.50	8.91	0.10	6.97	27.74	Up to guarantee.
2.47	3.00	.....	.....	.....	20.00	.....	.....	.....	.....
6.55	7.91	Trace.	10.43	1.82	12.25	10.43	0.29	5.00	33.27	Not registered.
15.95	19.37	.....	.....	.....	.....	.....	.....	2.72	54.23	Up to guarantee.
16.00	.....	.....	.....	.....	.....	.....	.....	.....	54.40	
2.24	2.72	Trace.	7.20	6.60	13.80	.....	.....	5.80	17.07	Identification of this sample is
3.83	4.65	1.20	9.97	4.15	15.32	11.17	0.05	.....	25.93	uncertain. Apparently below
										standard, but may be un-
										registered.
2.80	3.40	9.00	.....	1.00	10.00	.....	10.10	20.94	30.72	Up to guarantee.
4.00	.....	.....	.....	.....	10.00	.....	7.60	.....	.....
3.36	4.08	5.40	3.80	3.00	12.20	.....	12.00	13.40	34.98	Up to guarantee.
3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	.....
.....	.....	.....	.....	.....	.....	.....	54.80	2.52	54.80	Up to guarantee.
.....	.....	.....	.....	.....	.....	.....	50.00	.....	50.00	
16.09	19.53	.....	.....	.....	.....	.....	.....	1.84	54.71	Up to guarantee.
16.00	.....	.....	.....	.....	.....	.....	.....	.....	54.40	
3.92	4.76	7.50	Trace.	0.50	8.00	.....	12.20	9.80	34.68	Up to guarantee.
3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	.....
8.68	10.54	0.80	4.70	0.80	6.30	.....	.....	11.00	34.15	Up to guarantee.
8.34	10.13	.....	.....	.....	6.55	.....	.....	6.32	.....
3.08	3.74	9.00	Trace.	Trace.	9.00	.....	11.70	19.86	32.97	Up to guarantee.
3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	.....
3.08	3.74	9.00	0.40	Trace.	9.40	.....	11.70	19.60	33.41	Up to guarantee.
3.50	.....	.....	.....	.....	9.00	.....	11.00	.....	.....
1.12	1.36	11.30	.....	.....	11.30	.....	10.30	22.60	27.69	Up to guarantee.
.....	.....	.....	.....	.....	12.50	.....	11.00	.....	.....
Trace.	Trace.	16.30	0.40	Trace.	16.70	.....	.....	19.00	20.00	Up to guarantee.
.....	.....	.....	.....	.....	16.00	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	51.00	0.96	51.00	Up to guarantee.
.....	.....	.....	.....	.....	.....	.....	50.00	.....	50.00	
.....	.....	.....	.....	.....	.....	.....	53.00	4.27	53.00	Up to guarantee.
.....	.....	.....	.....	.....	.....	.....	50.00	.....	50.00	
4.20	5.10	Trace.	10.20	9.50	19.70	.....	.....	8.78	27.51	Not up to guarantee, but practi-
3.05	3.70	.....	.....	.....	29.00	.....	.....	3.00	.....	cally identical with standard
3.71	4.50	0.96	10.72	10.39	22.07	11.68	0.48	7.00	28.41	sample, of which the analysis
										is quoted.

APPENDIX F.

BULLETIN No. 140—MAPLE SUGAR, 1907.

OTTAWA, July 27, 1907.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

Sir,—I have the honour to submit the results of examination of two hundred and fifty-seven samples of maple sugar, purchased throughout the Canadian market by our inspectors, in April and May of the present year :

Inspectoral District.	Samples declared as mixture.	Found guenine.	Found adultera- ted.	Doubtful.	Total.
Nova Scotia.....	0	15	5	0	20
Prince Edward Island.....	3	7	4	1	15
New Brunswick.....	0	18	2	0	20
Quebec.....	0	22	0	0	22
St. Hyacinthe.....	0	18	1	1	20
Montreal.....	0	20	0	0	20
Ottawa.....	0	13	7	0	20
Kingston.....	1	2	16	0	19
Toronto.....	0	13	5	2	20
London.....	0	14	7	0	21
Manitoba.....	0	15	5	0	20
Calgary.....	0	15	5	0	20
British Columbia.....	1	13	0	6	20
	5	185	57	10	257

The following synopsis of work done in the inspection of maple sugar since 1905 is of interest in this connection :

INSPECTION OF MAPLE SUGAR.

Date of inspection.	Bulle- tin.	Sold as Mixture	Genuine	Doubt- ful.	Adulter- ated.	Total.	PERCENTAGE.	
							Genuine	Adul- terated.
March.....1905	102	0	12	2	8	22	55	37
May.....1905	102	0	15	0	3	18	83	17
March.....1906	120	0	11	3	12	26	42	46
May.....1906	120	1	44	0	7	52	85	13
May.....1907	140	5	185	10	57	257	72	22

It is worthy of note, that as was to be expected, the highest percentage of genuine samples has been found in the May collections, i.e., during the sugar-making season, and immediately after it.

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The whole of the work recorded in this Bulletin has been done by Mr. A. Valin, of this Laboratory; and I am able to speak confidently of the care and assiduity with which he has carried out the task assigned to him. Mr. Valin has prepared a memorandum, describing his methods, which I include with this report.

With regard to the standards adopted, I may say that these have been determined by very extensive research work done in this laboratory; and can be depended upon to do full justice to the manufacturer of maple sugar. It is well known that many samples, perhaps most samples, of genuine maple sugar, give decidedly higher ash, and a decidedly heavier precipitate, than 0.50 and 2.00 per cent, as well as a higher malic acid value than 0.40.

It is therefore quite within the limits of possibility that manufacturers should take the advantage of these facts, and, under careful supervision, dilute a genuine article with cane sugar, and still keep such adulterated product within the limits fixed as characterizing genuine maple sugar. It is indeed not too much to say that several of the samples now reported and passed as genuine, appear to justify a suspicion of such treatment as indicated. Since, however, nothing short of certainty can be permitted to influence the analyst's decision, the cases in question get the benefit of whatever doubt may exist in his mind.

Finally I would respectfully recommend that this report be published as Bulletin No. 140.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,

Acting Chief Analyst

MEMORANDUM.

Maple sugar is a crude product of the maple sap, which cannot be refined without losing its special flavour. The special value of maple sugar is due, not to the sugar content, but to that delicate flavour destroyed by refining. The colour of pure maple goods varies from straw yellow to a dark brown. The colour has no relation to the flavour, but the demand is greatest for the lighter grades which command a higher price on the market. All pure maple goods do not possess the characteristic flavour, in the same degree. This is explained by (1) the nature of the sap, (2) manipulation in manufacture.

Adulteration of maple sugar is commonly effected by addition of granulated sugar; occasionally by the addition of light brown sugar. Of the 57 samples found adulterated, in the present collection, the adulterant seems to be, without exception, granulated sugar. Samples of pure maple sugar and those adulterated with granulated, are clearly differentiated by their ash content. Only a trace of ash is found in granulated sugar, while the percentage of ash in maple sugar reaches 0.50 to about 1. Commercial brown sugar has an ash content similar to that of the maple; but the chemical character of this ash is different.

Methods have been devised by C. Jones, Chemist to the Vermont Agricultural Experiment Station, for the detection of brown sugar in admixture with maple sugar. Maple products form a large precipitate with basic lead acetate, the exact composition of which is not known, but which permits us to detect the presence of refined sugar. The examination, in this laboratory, of a large number of samples of known purity has enabled us to set certain limits for genuine sugar. Granulated sugar forms but very little precipitate with the above reagent, while brown sugar gives about a third to one-half the amount of precipitate given by a normal maple sugar.

Another important constant is the malic acid value, which is much greater in genuine maple products than in adulterated samples.

The determination of the ash, and of the lead subacetate precipitate, together with the malic acid value is found to be sufficient for the detection of the adulterants now

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in use. The following standards have been adhered to in judging maple sugar in the present bulletin :—

GENUINE.—Lead subacetate precipitate above 2 per cent. per 100 grmms dry substance ; total ash not less than 0.50 per 100 grmms dry substance ; malic acid value not less than 0.40.

DOUBTFUL.—Lead subacetate precipitate between 2.00 and 1.80 per 100 grmms dry substance ; ash not less than 0.50 per 100 grmms dry substance ; malic acid value not less than 0.40. Samples giving total ash slightly below 0.50 per 100 grmms dry substance, and low malic acid value have been classified as doubtful.

ADULTERATED.—Lead subacetate precipitate less than 1.80 per 100 grmms dry substance ; total ash less than 0.50 per 100 grmms dry substance ; malic acid less than 0.40.

In order to establish uniformity of standards for maple sugar and maple syrup, the ash and the lead subacetate precipitate have been expressed for 100 grmms dry substance.

The methods in use in the Inland Revenue Laboratory for the detection of the adulteration in maple products, may be described as follows :—

Lead subacetate precipitate. Five grammes sugar is weighed into a large test-tube and dissolved into 20cc water. Two cc of lead subacetate solution (sp. gr. 1.26) are added and the solution mixed. After standing two or three hours, the mixture is filtered into a sugar tube, washed four or five times with warm water, dried and weighed. The precipitate obtained, multiplied by 22.22 gives the lead subacetate for 100 grmms dry substance, assuming the sugar to contain 10 per cent. of water.* The standard lead subacetate solution is prepared as follows :—

Boil for half an hour 430 grmms of normal lead acetate and 130 grmms of litharge with 1000cc water. Cool the mixture, allow to settle, and dilute the supernatant liquid to 1.26 specific gravity. (United States Dept. Agric. Div. Chem. Bull. 65, p. 84).

NOTE.—It is of the greatest importance that the above solution should have a specific gravity of 1.26, and that an excess of reagent should be avoided.

The error of manipulation with the above method on 75 samples worked in duplicate has been found to be 0.22 for a lead subacetate precipitate varying from 2 to 0.20 per grmms dry substance.

ASH.—Ten grmms of the sample is weighed into a flat bottom platinum dish of 100cc capacity ; heated slowly over a bunsen burner, until charred, then burned at a low red heat to a white or grey ash. The dish is placed in a desiccator till cold, and weighed.

The number of milligrams of ash multiplied by 11.1 gives the percentage of ash per 100 grmms dry substance, assuming the sugar to contain 10 per cent. water.

MALIC ACID VALUE.—The method used was devised by Hortvet as follows :—

Six and seven tenths grmms of the sample is weighed into a 200cc beaker and water added to make a volume of 20cc. The solution is made slightly alkaline with ammonia, 1cc of a 10 per cent. solution of calcium chloride is added ; then 60cc of 95 per cent. alcohol. The beaker is covered with a watch glass and heated for one half-hour on a water bath, when the flame is turned off and the beaker left to stand over night. The material in the beaker is then filtered through a good quality filter paper, the precipitate washed with hot 75 per cent. alcohol to free from soluble calcium salt, dried and ignited. From 15 to 20cc of tenth normal hydrochloric acid is added to the ignited residue, the lime thoroughly dissolved by careful boiling, and the excess of acid titrated with tenth normal sodium hydroxide, using methyl orange as an indicator. One tenth of the number of cubic centimeters of acid neutralized expresses the result, which for the present will be called ' Malic Acid Value.'

A. VALIN.

* The determination of the water content in 32 samples of maple sugar give a maximum 11.17 and a minimum 3.05, mean 8.01. The same conclusion has been reached by C. H. Jones, Chemist, Vermont Experiment Station (Rep. 1905, p. 330).

RECORD OF MAPLE SUGAR SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY.

District of Nova Scotia—R. J. Waugh, Inspector.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate precipitate.	Total Ash.		
1907.										
April 18	Maple Sugar	27301	Larder Hubley & Co., Halifax, N. S.	1 lb., 20c.	J. C. Harrison, South Farmington, N. S.	.....	4.95	1.01	..	Genuine.
" 18	"	27302	W. C. Anderson, Halifax, N. S.	1 " 20c.	Unknown	.....	4.35	0.81	..	"
" 18	"	27303	E. W. Crease & Son, Halifax, N. S.	1½ " 30c.	"	.....	4.51	0.92	....	"
" 18	"	27304	W. J. Hopgood & Son, Halifax, N. S.	1 " 26c.	Furnished by Maritime Dairy Co., Sussex, N. B.	.....	3.20	0.70	....	"
" 19	"	27305	Moirs, Limited, Halifax, N. S.	1½ " 30c.	Unknown	.....	1.65	0.49	0.04	Adulterated.
" 19	"	27306	C. Crasce, Halifax, N. S.	1½ " 30c.	"	.....	2.37	0.64	.....	Genuine.
" 19	"	27307	P. Gasper, Halifax, N. S.	1 " 20c.	Vendor	.....	1.59	0.55	0.10	Adulterated.
" 19	"	27308	Geo. Wakefield, Halifax, N. S.	1½ " 30c.	Furnished by Maritime Dairy Co., Sussex, N. B.	.....	3.33	0.64	.....	Genuine.
" 22	"	27309	D. H. Eaton, Kentville, N. S.	1 " 20c.	Mr. Quacco, Cumberland Co., N. S.	.....	0.84	0.28	0.06	Adulterated.
" 22	"	27310	S. L. Cross, Kentville, N. S.	1½ " 30c.	F. Doyle, North Alton, N. S.	.....	4.64	1.07	.....	Genuine.
" 23	"	27311	Mr. L. C. Hutchison, Wolfville, N. S.	1½ " 25c.	Furnished by E. McKenzie, Springhill, N. S.	.....	4.55	0.94	.....	"
" 24	"	27312	Dodge & Co., Windsor, N. S.	1 " 22c.	D. K. Gilbert, Gilbert's Mountain, N. S.	.....	3.66	0.92	.....	"
" 24	"	27313	N. Livingstone, Windsor, N. S.	1½ " 20c.	Sugars, Limited, Montreal.	.....	1.44	0.39	0.06	Adulterated.
" 24	"	27314	Jno. Riley, Windsor, N. S.	1 " 20c.	Unknown	.....	4.37	0.81	.....	Genuine.
" 24	"	27315	Jno. Lynch & Sons, Windsor, N. S.	1 " 20c.	"	Cumberland Sugar.	3.64	0.78	.....	"
" 26	"	27316	J. & G. Berringer, Lunenburg, N. S.	1 " 20c.	Mr. Dorris, Spectacle Lake, N. S.	.....	4.40	0.53	.....	"

RECORD OF MAPLE SUGAR SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY—Continued.

District of Nova Scotia—R. J. Waugh, Inspector—Concluded.

Date of Collection.	Nature of Samples.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate.	Total Ash.		
1907.										
April 26	Maple Sugar.	27317	E. L. Nash, Lunenburg, N. S.	1 lb., 20c.	Moirs, Ltd., Halifax	.....	0.93	0.25	0.35	Adulterated.
May 1	"	27318	C. M. Roberts, Parrsboro, N. S.	1 " 15c.	Amos Hannah, Cumberland Co.	.....	4.93	1.04	.....	Genuine.
" 1	"	27319	W. F. Dexter, Parrsboro, N. S.	1 " 18c.	D. S. Gilbert, Gilbert's Mountain, N. S.	.....	3.22	0.66	.....	"
" 1	"	27320	S. H. Terris, Springhill, N. S.	1 " 20c.	J. M. Hunter, Leamington, N. S.	.....	4.33	0.96	.....	"

District of Prince Edward Island—T. Moore, Inspector.

April 18	Maple Sugar.	28384	Stewart & Son, Charlottetown.	1 lb., 15c.	Sugars, Ltd., Montreal	.....	0.75	0.28	0.20	Adulterated.
" 18	"	28385	F. White, Charlottetown.	1 " 20c.	Unknown	.....	0.27	0.18	0.06	"
" 19	"	28386	A. Bowness, Kensington.	1 " 10c.	F. T. Thomas, Quebec	Sold as Compound.	4.75	1.04	.....	Sold as Compound.
" 20	"	28387	Brace & McKay, Summerside.	1 " 20c.	Jas. E. Smith, South Brook, N. S.	.....	4.62	1.02	.....	Genuine.
" 20	"	28388	McMurdo Bros., Summerside.	1 " 12c.	Unknown	Sold as mixture.	0.15	0.12	.....	Sold as Mixture.
" 21	"	28389	D. G. Cameron, Montague Bridge.	.....	F. T. Thomas, Quebec	Sold as Compound.	0.13	0.12	.....	Sold as Mixture.
" 21	"	28390	T. J. Donahoe, Rosneath.	.....	T. J. Donahoe, Rosneath	Purchased from mfrs. on premises.	5.44	0.82	.....	Genuine.
" 25	"	28391	W. S. Brown, Charlottetown, P.E.I.	1 lb., 25c.	Thomas Cairns, Shamrock, P.E.I.	.....	0.93	0.48	0.14	Adulterated.
" 28	"	28392	Sanderson & Co., Charlottetown, P.E.I.	1 " 20c.	Allan Rogerson, Gamble's Corner, P.E.I.	Did not sell for pure.	2.11	0.90	.....	Genuine.
" 28	"	18393	J. J. Gay & Son, Charlottetown.	1 " 60c.	H. Sanway, Agent, Charlottetown, P.E.I.	.....	1.33	0.40	0.39	Adulterated.

May	1	Maple Sugar	28394	Mrs. W. F. Carter, Charlottetown, P.E.I.	1 lb., 25c.	Edward McKenzie, Springhill, N.E.	3.93	1.10	.....	Genuine.
"	"	"	28395	James Kelly, Charlottetown, P.E.I.	1 " 20c.	Sugars, Limited, Montreal.	1.89	0.44	0.23	Doubtful.
"	"	"	28396	A. Gates & Co., Charlottetown, P.E.I.	1 " 25c.	John McKinnon, Charlottetown, P.E.I.	3.73	0.66	.....	Genuine.
"	"	"	28397	Bur & Goff, Charlottetown, P.E.I.	1 " 24c.	John McKinnon, Charlottetown, P.E.I.	3.44	0.63	.....	"
"	"	"	28398	M. Toole, Charlottetown, P.E.I.	1 " 25c.	Inconnus.	4.51	0.88	.....	"

District of New Brunswick—J. C. Ferguson, Inspector.

April	8	Maple Sugar	24346	McPherson Bros., 181 Union St., St. John, N.B.	3 lb., 60c.	Wilfred Fenwick, City Market, St. John, N.B.	3.90	0.75	.....	Genuine.
"	"	"	24347	M. D. Morrell, N.E. Corner Main & Durham Sts., St. John, N.B.	3 bars, 30c.	Sugars Co., Limited, Montreal, Que.	1.00	0.31	.....	Adulterated.
"	"	"	24348	W. Alex. Porter, Corner Main & Waterloo Sts., St. John, N.B.	3 " 66c.	William Fenwick, City Market, St. John, N.B.	3.82	0.90	.....	Genuine.
"	10	"	24349	Chas. A. Clark, 73 Sydney St., St. John, N.B.	3 " 60c.	Hudson & Co., North Market St., St. John, N.B.	3.82	0.93	.....	"
"	23	"	24369	N. W. Everleigh & Co., Main St., Sussex, N.B.	3 " 36c.	B. Hubley, Goshen, N.B.	2.55	0.72	.....	"
"	23	"	25370	Sussex Mercantile Co., Ltd., Main St., Sussex, N.B.	3 " 48c.	James Beck, Elgin, N.B.	2.93	0.72	.....	"
April	24	Maple Sugar	24371	A. M. Brown, Main St., Petticodiac, N.B.	3 bars, 36c.	Stephen Cane, Pleasant Vale, N.B.	3.95	1.04	.....	Genuine.
"	24	"	24372	H. W. Church & Co., Main St., Petticodiac, N.B.	3 " 38c.	Fred. Colpitts, Pleasant Vale, N.B.	3.95	1.04	.....	"
"	24	"	24373	C. S. Goggin, Main St., Petticodiac, N.B.	3 " 42c.	Benjamin Prosser, Prosser's Brook, N.B.	4.77	1.11	.....	"
"	24	"	24374	Follausbee & Co., New castle, N.B.	3 " 65c.	Goddard Bros., Elgin, N.B.	3.55	0.73	.....	"
"	29	"	24375	S. Holdengraber, Corner George & King Sts., Bathurst, N.B.	3 " 30c.	Hudon, Hebert & Co., Montreal.	3.26	0.75	.....	"
"	30	"	24376	Geo. T. Vernet, Main St., Campbellton, N.B.	3 pkgs., 60c.	X. Lavallée, St-Jean Port. Joli, Que.	0.32	0.17	0.07	Adulterated.
May	9	"	24395	Ganong Bros., Ltd., Water St., St. Stephen, N.B.	3 bars, 66c.	Goddard Bros., Elgin, N.B.	2.53	0.61	.....	Genuine.

RECORD OF MAPLE SUGAR SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY.

District of New Brunswick—J. C. Ferguson, Inspector—Concluded.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Adresse of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Pre- cipitate.	Total Ash.		
1907.										
May 11	Maple Sugar...	24396	Daniel Liniham, Kings St., Fredericton, N.B.	3 bars, 50c.....	Wm Parent, Bear Island, N.B.	No label.....	4.00	0.75	.....	"
" 11	"	24397	Jas. A. Bell, Queen St., Fredericton, N.B.	3½ lb., 65c.....	Whinant Cliff, Queensbury, N.B.	.....	3.73	1.01	.....	"
" 13	"	24398	H. H. Moxon, Woodstock, N.B.	6 patty pans, 25c.	J. H. McNally, Beechwood, N.B.	No label.....	6.02	1.30	.....	"
" 13	"	24399	B. H. Smith & Sons, Woodstock, N.B.	3 bars, 25c.....	Rowell, Son & Co., Sherbrooke, Que.	"	3.17	0.54	.....	"
" 16	"	24400	Peter Lagacy, Grand Falls, N.B.	3 " 45c.....	Joseph Caron, Drummond, N.B.	"	6.60	1.43	.....	"
" 16	"	29501	A. J. Martin, Grand Falls, N.B.	3½ lb.....	Louis Bouchia, Drummond, N.B.	"	7.02	1.33	.....	"
" 16	"	29502	J. L. White, Grand Falls, N.B.	4½ lb., 50c.....	Joseph Goodbout, Drummond, N.B.	"	7.57	1.11	.....	"

District of Quebec—E. Bédard, Inspector.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Adresse of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Pre- cipitate.	Total Ash.		
April 4	Maple Sugar...	26190	Alex. Lessard, St. Joachim.	3 lb., 24c.....	Alex. Lessard.....	.....	4.24	0.75	.....	Genuine.
" 4	"	26192	T. B. A. Paré, St. Joachim.	5½ " 55c.	T. B. A. Paré, St. Joachim.	.....	4.91	1.23	.....	"
" 4	"	26193	Gaudios Fortin, St. Joachim.	3 " 39c.	Gaudios Fortin, St. Joachim.	.....	5.77	1.22	.....	"
" 5	"	26197	Joseph Gagnon, St. Roch.	2 " 25c.	Unknown.....	.....	3.95	1.15	.....	"
" 5	"	26199	Joseph Falardeau, 268 St., Quebec.	3 " 37c.....	Pierre Renaud.....	.....	4.44	0.83	.....	"
" 8	"	26205	T. Julien, 124 St., Quebec.	2 " 24c.....	Letourneau, Orleans Island	.....	5.06	0.91	.....	"

"	8	"	26206	T. Julien, 124, Dorchester St., Quebec.	24 "	22c.....	Tremblay, Château Richer.	.....	5.26	1.04	..	"
"	16	"	26201	Edmond Cléche, St. Marie, Beauce.	3 "	25c.....	Thos. Deblouais, St. Marie, Beauce.	.....	4.44	0.84	.....	"
"	16	"	26209	Israël Fecteau, St. Marie, Beauce.	4 "	32c.....	Israël Fecteau, St. Marie, Beauce.	.....	5.88	1.01	.....	"
"	16	"	26210	Thos. Champagne, St. Marie, Beauce.	1 "	10c.....	Thos. Champagne, St. Marie, Beauce.	.....	5.06	0.96	.....	"
"	16	"	26211	Louis Marcoux, St. Marie, Beauce.	1 "	10c.....	Louis Marcoux, St. Marie, Beauce.	.....	5.11	1.01	.....	"
"	16	"	26212	Alex. Labé, St. Marie, Beauce.	4 "	32c.....	Alex. Labé, St. Marie, Beauce.	.....	6.00	1.04	.....	"
"	17	"	26213	Geo. Gagné, St. Elzear, Beauce.	5 "	44c.....	Geo. Gagné, St. Elzear, Beauce.	.....	4.80	0.96	.....	"
"	17	"	26214	Joseph Dion, St. Elzear, Beauce.	2 "	20c.....	Joseph Dion, St. Elzear, Beauce.	.....	5.93	1.15	.....	"
"	17	"	26215	Lazare Routhier, St. Elzear, Beauce.	5 "	50c.....	Lazare Routhier, St. Elzear, Beauce.	.....	4.33	0.84	.....	"
"	17	"	26216	Jos. Sylvain, St. Elzear, Beauce.	3 lb.,	25c.....	Jos. Sylvain, St. Elzear, Beauce.	.....	5.66	1.16	.....	Genuine.
"	17	"	26217	Nazaire Langlois, St. Elzear, Beauce.	1 "	10c.....	Nazaire Langlois, St. Elzear, Beauce.	.....	5.37	0.85	.....	"
"	17	"	26218	Michel Marcoux, St. Elzear, Beauce.	3½ "	30c.....	Michel Marcoux, St. Elzear, Beauce.	.....	5.53	0.93	.....	"
"	17	"	26219	Jos. Simard, St. Elzear, Beauce.	3 "	25c.....	Jos. Simard, St. Elzear, Beauce.	.....	6.53	1.40	.....	"
"	17	"	26220	Narcisse Lachance, St. Elzear, Beauce.	4 "	32c.....	Honoré Breton, St. Elzear, Beauce.	.....	6.44	1.44	.....	"
"	30	"	26252	Xavier Lavallée, St. Jean Port Joli.	2½ "	20c.....	Maxime Morin, St. Jean, Port Joli.	.....	4.57	1.04	.....	"
"	30	"	26253	Xavier Lavallée, St. Jean Port Joli.	2½ "	20c.....	Gaspard Bois, St. Aubert.	.....	3.88	1.10	.....	"

District of St. Hyacinthe—J. C. Rouleau, Inspector.

April 16	Maple Sugar....	001	C. B. Dionne, South Dur-	4 lb.,	36c.....	Louis Nadeau, St. Cris-	.....	4.80	0.97	.....	Genuine.
"	"	002	J. Bédard & Fils, Richmond ham.	3 "	30c.....	B. Ryley, Richmond.	.....	4.20	0.80	.....	"
"	"	003	McRea, Bros., Richmond.	13 "	16c.....	Ed. Seale, Dennissons Mills	.....	5.48	1.03	.....	"
"	"	004	J. Bourque, Windsor Mills	4½ "	45c.....	M. Laporte, Windsor Mills	.....	6.42	1.04	.....	"
"	"	065	Paul Tourigny, Victoria-	4 "	32c.....	Theophil Augers, St. Nor-	.....	4.48	1.17	.....	"
"	"	006	D.-O. Barbeau, Victoria-	4 "	32c.....	D. Roberge, St. Paul de	.....	4.44	1.02	.....	"
"	"	007	Aurélien Doyon, Thet-	4 lb.,	39c.....	R. Doyon, Thetford.	.....	6.73	1.25	.....	Genuine.
"	"	008	Talbot & Larose.....	3 "	30c.....	John C. Reed, Lameturier,	.....	4.80	1.00	.....	"
"	"	009	H. J Johnston, Minton...	3 "	15c.....	Vendor.....	.....	4.80	1.21	.....	"

RECORD OF MAPLE SUGAR SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY—Continued.

District of St. Hyacinthe—J. C. Rouleau, Inspector---Concluded.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Precipitate.	Total Ash.		
1907.										
April 20	Maple Sugar....	010	Fortunal Denis, Martinville.	7 lb., 14c. ...	Vendor.....	.....	6.26	1.25	.....	"
" 20	"	011	H. R. Slack, North-Hatley.	" 48c.....	"	.....	4.73	0.88	....	"
" 22	"	012	F. Desmarais, St. Liboire.	2 block, 30c.....	"	.....	1.95	0.42	0.27	Doubtful.
" 24	"	013	Maple Tree Producers Assoc., Waterloo, Que.	3 " " " " " "	"	.....	3.28	0.67	.....	Genuine.
" 27	"	014	A. Mandeville, Contrecoeur.	0 " 15c.....	"	.....	2.60	0.75	.....	"
" 27	"	015	Ulric Labossière, St. Ours.	4 lb., 40c. ....	"	.....	4.24	0.97	..	"
" 27	"	016	Louis Laperle, St. Ours...	2 14-16 lb., 25c..	"	.....	3.42	0.74	.....	"
" 27	"	17	J. E. Lamoureux, Contrecoeur.	2 block, 35c.....	"	Maple Leaf mould on blocks.	4.28	1.11	.....	"
" 30	"	18	A. O. Stuart, Napierville...	5 lb., 50c.. ..	N. Fortin, Napierville.....	No Label.....	1.46	0.56	0.25	Adulterated.
" 30	"	19	A. Le Blanc et Cie, Napierville.	2 23 " 28c.....	D. Morin, Napierville....	"	4.88	0.91	..	Genuine.
May 11	"	20	Jos. Chartier, St. Hyacinthe.	3 block, 17c.....	Vendor.....	"	4.26	1.06	.....	"

District of Montreal—J. J. Costigan, Inspector.

April 3	Maple Sugar....	31661	Broulette & Guay, University St.	77, 4 cakes, 50c.....	Jno. Caldwell & Co., 173 McGill St., Montreal.	Sold as pure.....	2.40	0.84	..	Genuine.
" 3	"	31662	A. Bowes & Co., McGill, Montreal.	211 4 " 40c...	Chas-E. Wilson, Dirnboro, Que.	"	3.08	0.77	....	"
" 12	"	31663	Canada Maple Exchange, 618 Beaudry St., Montreal.	3 tins, 45c.....	Vendor.....	Sold as pure, sample taken from stock.	2.77	0.67	.....	"

"	16	"	31664	E. Brais, 743 St. Lawrence St., Montreal.	2 lb., 25c.	A. Desautels, St. Hilaire, Que.	Guaranteed pure.	3.77	1.00	.....	"
"	17	"	31665	Leduc et Frere, Valley-field, Que.	1 block, 28c.	J. Thibault, Franklin,	Sold as pure	4.44	1.00	.....	"
"	17	"	31666	Richer & Daoust, Valley-field.	1 " 25c.	Not known.	"	6.40	1.46	.....	"
"	17	"	31667	Daignault Freres, Valley-field.	2 lb., 27c.	N. Laberge.	"	3.55	0.94	.....	"
"	18	"	31668	N. Massicotte, Joliette, Que.	1 block, 18c.	.....	.....	4.28	1.00	.....	"
"	18	"	31669	Malo Bros., Joliette, Que.	1 " 30c.	.....	.....	6.11	1.41	.....	"
"	18	"	31670	C. Barette, Joliette, Que.	3 block, 34c.	Joseph DeBlois, Sainte-Elizabeth.	.....	3.28	0.66	.....	"
"	18	"	31671	C. Barette, Joliette, Que.	1 block, 20c.	A. Savignac, Ste. Elizabeth.	.....	5.00	0.97	.....	"
"	19	"	31672	Ulderic Desautels, St. Hilaire.	3 blocks, 30c.	Vendor.	.....	4.40	1.10	.....	"
"	19	"	31672	Michel Bordua, St. Charles, Richelieu.	1 block, 20c.	"	.....	3.95	0.80	.....	"
"	23	"	31674	Pringle, Stark & Co., Huntingdon, Que.	3 cakes, 37c.	John Hinks, Powers-Court.	.....	4.46	0.95	.....	"
"	23	"	31675	E. C. McCoy, Huntingdon, Que.	1 cake, 38c.	Robert Withal, New-Ireland.	.....	4.42	1.25	.....	Genuine.
"	23	"	31676	A. Chalmers, Huntingdon, Que.	1 " 30c.	Not given.	.....	5.35	1.23	.....	"
"	26	"	31677	W. J. Falle, St. Antoine, Market, Montreal.	1 block, 26c.	Gunn & Langlois, Montreal.	.....	5.40	1.13	.....	"
"	26	"	31678	N. Deschênes, St. Antoine Market, Montreal.	1 " 27c.	Gunn & Langlois, Montreal.	.....	5.26	1.08	.....	"
"	26	"	31679	Gunn & Langlois, St. Paul, Montreal.	1 " 30c.	Hébert & Guertin, St. Charles.	.....	4.02	0.80	.....	"
"	26	"	31680	Gunn & Langlois, St. Paul, Montreal.	1 " 20c.	Avila Gravel, St. Felix.	.....	6.26	1.33	.....	"

District of Ottawa;—E. Belisle, general Inspector, and A. E. Sanderson, Inspector.

April	9	Maple Sugar.	32359	D. J. Gillies, Gornwall ...	2 cakes, 20c.	Sugars, Limited, Montreal.	Pure Maple Sugar label.	0.94	0.32	0.10	Adulterated.
"	9	"	32361	G. W. Armstrong, Cornwall.	" 30c.	Hart & Tuckwell, Montreal.	"	3.51	0.77	.....	Genuine.
"	15	"	32367	Paul Bova, Bank St., Ottawa.	" 20c.	Not known.	"	3.33	0.88	.....	"
"	15	"	32366	A. Wackid, Bank St., Ottawa.	" 20c.	Sugars, Limited, Montreal.	Absolutely Pure Label	1.11	0.30	0.98	Adulterated.
"	15	"	32370	Mrs. Blackburn, Metcalfe St., Ottawa.	" 20c.	Sugars, Limited, Montreal.	"	2.04	0.53	0.50	Genuine.
"	15	"	32372	Kavanagh Bros., Sparks St., Ottawa.	" 20c.	Hall, Burnstown.	Guaranteed pure by the manufacturer.	4.06	0.93	...	"

RECORD OF MAPLE SUGAR SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY.

District of Ottawa—E. Belisle, general Inspector, and A. E. Sanderson, Inspector—Concluded.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Pre- cipitate.	Total Ash.		
1907.										
April 15	Maple Sugar...	32374	Bate & Son, Sparks St., Ottawa.	2 cakes, 20c....	Maple Tree Producers Assoc., Waterloo, Que.	Pride of Canada, Absolutely Pure.	4.02	0.90	.....	Genuine.
" 15	"	32378	Bryson, Graham & Co., Sparks St., Ottawa.	2 " 20c....	Not known ...	.....	3.55	1.00	.....	"
" 27	"	32220	John Boyle, Alexandria, Ont.	1 lb., 10c	"	Sold as Maple Sugar...	5.33	1.21	.....	"
" 27	"	32221	Doyle Bros. & Co., Alexandria, Ont.	2 " 18c....	J. J. McDonald, Alexandria, Ont.	"	3.88	0.77	.....	"
" 27	"	32222	F. & H. Banford, Hawkesbury, Ont.	1 " 12c....	Not known.....	"	4.66	1.07	....	"
" 29	"	33223	Michael Duffy, Aylmer, Que	3 cakes, 30c...	"	"	1.20	0.34	0.12	Adulterated.
" 29	"	32224	C. P. Wright, Aylmer, Que.	2 " 30c....	J. G. Whyte, Rideau St., Ottawa.	"	0.63	0.27	0.06	"
" 29	"	32225	F. Soulière, Aylmer, Que.	3 " 30c....	Sugars, Limited, Montreal.	"	2.20	0.52	....	Genuine.
May 7	"	32226	Louis Raymond, Hull, Que.	3 " 30c....	Fredman (Market), Ottawa.	"	3.11	0.77	.....	"
" 8	"	32227	A. Villeneuve, Gatineau Point.	3 " 30c....	J. G. Whyte, Ottawa.....	"	3.73	0.84	.....	"
" 8	"	32228	A. J. Smith, Gatineau Point.	3 " 30c....	J. G. Whyte, Ottawa ...	"	0.71	0.24	0.04	Adulterated.
" 8	"	32229	Mrs. L. Champagne, Gatineau Point.	3 " 30c....	J. G. Whyte, Ottawa.....	"	0.88	0.31	0.22	Adulterated.
" 13	"	32230	J. Bambrick, 50 George St., Ottawa.	2½ lb., 35c..	J. D. McGregor.....	"	3.04	0.81	.....	Genuine.
" 13	"	32231	J. M. Dowdall, 237 Rideau St., Ottawa.	1 cakes, 10c... ..	Sugars, Limited, Montreal.	"	1.48	0.40	0.40	Adulterated.

District of Kingston—Jas. Hogan, Inspector.

April	2	Maple Sugar....	31075	Franklin Clow, Earl St., Kingston.	1½ lb., 30c ...	Maple, Limited, Montreal.	Sold as maple flavour..	0.40	0.23	0.21	Sold as maple flavour.
"	2	"	31080	C. S. Litton, Alfred St., Kingston.	1½ " 30c ...	Sugars, Limited, Montreal	.....	1.07	0.30	0.48	Adulterated.
"	2	"	31082	F. Ostler, Johnston St., Kingston.	1½ " 30c ...	Robertson Nicolle, Kingston.	.....	1.21	0.39	0.07	"
"	2	"	31090	J. Kelley, Princess St., Kingston.	1½ " 30c.....	Sugars, Limited, Montreal	.....	1.15	0.31	0.21	"
"	3	"	31092	H. E. Fairfield, Front St., Belleville.	1½ " 30c ..	.....	.....	1.09	0.36	0.26	"
"	3	"	31095	A. J. McCrodan, Front St., Belleville.	1½ " 30c	J. Sloan, Belleville....	.....	0.94	0.25	0.10	"
"	3	"	31097	Wallbridge & Clark, Front St., Belleville.	1½ " 30c.....	"	.....	0.91	0.31	0.09	"
"	3	"	31099	H. Harker, Front St., Belleville.	1½ " 30c.....	.....	.....	0.81	0.32	0.27	"
"	3	"	32401	G. Pearson, Front St., Belleville.	1½ " 30c.....	.....	.....	0.81	0.34	0.07	"
"	3	"	32403	John Panter & Son, Belleville, Ont.	1½ " 30c. ....	.....	.....	1.05	0.32	0.08	"
"	3	"	32404	J. H. P. Young, Front St., Belleville.	1½ " 30c.....	.....	.....	1.16	0.34	0.14	"
"	4	"	32406	T. A. Fisher, William St., Lindsay.	1½ " 30c.....	.....	.....	0.81	0.31	0.23	"
"	4	"	32410	Adams Bros., Kent St., Lindsay.	1½ " 30c ...	.....	.....	2.73	0.75	.....	Genuine.
"	4	"	32412	A. Primeau, Kent St., Lindsay.	1½ " 30c .....	.....	.....	0.78	0.26	0.16	Adulterated.
"	4	"	32420	A. W. Lockhart, George St., Peterboro.	1½ " 30c. ....	.....	.....	0.63	0.23	0.06	"
		Maple Sugar....	32423	R. A. Dutton, George St., Peterboro.	1½ lb., 30c .....	.....	.....	0.23	0.15	0.30	Adulterated.
"	4	"	32426	W. J. Routley, Charlotte St., Peterboro.	1½ " 30c.	Sugar, Limited, Montreal.	.....	1.48	0.45	0.20	"
"	5	"	32433	J. Sutherland, George St., Peterboro.	1½ " 30c.....	"	.....	2.40	0.57	.....	Genuine.
"	5	"	32436	J. R. Bell, Hunter St., Peterboro.	1½ " 50c ..	"	.....	1.07	0.42	0.13	Adulterated.

1907.

District of Toronto—H. J. Dager, Inspector.

May	8	Maple Sugar....	33222	W. Eddy, Toronto.....	1 lb., 10c.....	.....	Labeled Pure Maple Sugar.	2.77	0.53	.....	Genuine.
"	2	"	33223	Spencer Smith, Toronto...	2 " 30c.....	Farmer at Smith's Falls...	.....	4.77	1.22	.....	"
"	2	"	33224	Joseph Patterson, Toronto.	3 " 30c.	Sugars, Ltd., Montreal....	.....	2.20	0.55	.....	"
"	2	"	33225	J. J. Burton, Toronto.....	1½ " 30c.	J. Sloan & Co., Toronto...	Sloans Pure, Quebec...	2.86	0.66	.....	"

District of Toronto—H. J. Dager, Inspector—Concluded.

INLAND REVENUES

8-9 EDWARD VII., A. 1909

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Precipitate.	Total Ash.		
1907.										
" 9	"	33226	J. A. Sweet, Toronto.	2½ " 30c.	Clems Bros., Agents, Toronto.	.....	2.80	0.71	...	Genuine.
" 9	"	33227	Jno. Coutts, Toronto.	2 " 30c.	Sugars, Ltd., Montreal.	Absolutely pure.	1.44	0.48	0.29	Adulterated.
" 10	"	33228	Geo. Coles, Ltd., Toronto. .	2½ " 50c.	Geo. Coles, Ltd., Toronto. .	Sold as pure.	5.64	1.23	.....	Genuine.
" 10	"	33229	Frank Giles, Toronto.	2½ " 35c.	Pierce, Delta. Ont., near Brockville.	Guaranteed pure.	4.17	0.93	.....	"
" 10	"	33230	W. S. Fry & Co., Toronto. .	1½ " 22c.	E. D. Rothwell, Quebec. .	Guaranteed pure.	4.17	1.11	.....	"
" 17	"	33231	W. J. Snell, East Toronto. .	2 " 30c.	H. P. Echerdt, agents, Toronto.	Purchased from manufacturer in 5 gal. tin.	2.53	0.68	.....	"
" 20	"	33232	Battrem & Co., Hamilton. .	2 " 30c.	L. Chaput, Son & Co. ....	.....	5.28	0.98	.....	"
" 20	"	33233	Bain & Adams, Hamilton. .	2 " 30c.	Maple Tree Producers Association.	.....	3.68	1.20	.....	"
" 20	"	33234	P. H. Gage, Hamilton.	2 " 30c.	Sugars, Ltd., Montreal.	Guaranteed pure.	0.79	0.29	0.06	Adulterated.
" 20	"	33235	Peeble's Hobson & Co., Hamilton.	2 " 30c.	W. L. Sager, Freighsburg, Que.	.....	3.35	0.87	.....	Genuine.
" 20	"	33236	W. J. O'Brien, Hamilton. .	1½ " 20c.	Imperial Syrup Co., Montreal.	.....	1.80	0.62	.....	Doubtful.
" 21	"	33237	J. B. O'Neil, Hamilton.	2 lb., 30c.	Sugars, Ltd., Montreal. ....	.....	1.95	0.50	.....	"
" 21	"	33238	Wm. Carroll, Hamilton.	1½ " 20c.	Imperial Syrup Co., Montreal.	.....	2.97	0.71	.....	Genuine.
"	"	33239	H. C. Davis, Dundas.	2 " 30c.	Sugars, Ltd., Montreal. ....	.....	1.34	0.43	0.34	Adulterated.
"	"	33240	C. Boyle, Dundas.	2 " 30c. ....	"	.....	1.49	0.53	0.11	"
"	"	32241	N. Arnold, Hamilton.	1½ " 30c.	Balfour & Co., Hamilton. .	.....	1.26	0.41	0.23	"
District of London—T. Kidd, Inspector.										
April 20	"	30314	Peter Dill, Seaforth.	1¼ lb., 20c.	Jno. Stone & Co., Toronto.	.....	0.99	0.34	0.04	Adulterated.
" 20	"	30315	Oscar Neil, Seaforth.	1½ " 20c.	Stratford Wholesale Grocers Co.	.....	2.80	0.77	.....	Genuine.

SESSIONAL PAPER No. 14

"	23	"	...	30316	R. Mount Joy & Son, London, Ont.	2	"	20c	A. M. Smith, London.....	.....	3.84	0.54	.....	Genuine.
April	23	Maple Sugar.	r.	30319	W. Anderson, Chatham...	1½	"	20c	Montreal Sugar Co., Montreal.	.....	0.99	0.34	0 04	Adulterated.
"	25	"	...	30323	Geo. H. Varrin, Windsor.	1½	"	20c	Imperial Maple Sugar Co., Montreal.	.....	2.26	0.74	.....	Genuine.
"	25	"	...	30325	Jno. O. Cheyne, Windsor.	1½	"	20c	A. M. Smith & Co., London, Ont.	.....	1.24	0.41	0 16	Adulterated.
"	26	"	...	30327	Reeks & Co., St. Thomas.	2	"	20c	Lucas Steel & Bristol, Hamilton, Ont.	.....	1.20	0.37	0 34	"
"	26	"	...	30330	J. A. McCaule, St. Thomas, mas.	1½	"	20c	J. J. Steele, St. Thomas, Ont.	.....	2.49	0.80	.....	Genuine.
May	1	"	...	30332	A. J. Nichols, Wingham.	2 lb.	20c	20c	John Garven, London.....	.....	2.95	0.80	.....	Genuine.
"	1	"	...	30334	Jos. J. Prichard, Harrison.	2	"	20c	John Stone, Toronto . .	.....	1.03	0.30	0 09	Adulterated.
"	2	"	...	30337	Geo. Strothers, Walkerton.	2	"	20c	T. B. Escott, London.....	.....	2.04	0.61	.....	Genuine.
"	2	"	...	30341	Schreindt & Mutter, Hanover.	2	"	20c	Unknown.....	.....	0.86	0.40	0 04	Adulterated.
"	3	"	...	30344	Haleday & Stenson, Chesley.	2	"	20c	"	.....	0.97	0.33	0 05	Genuine.
"	3	"	...	30346	R. A. Climie, Listowel....	2	"	20c	Geo. Watts & Sons, Brantford.	.....	2.28	0.61	.....	"
"	4	"	...	30348	A. Beatter & Co., Stratford.	"	30c	30c	Maple Tree Producers Co., Waterloo, Que.	.....	3.28	0.78	.....	"
"	8	"	...	30350	J. A. McCrea & Son, Guelph.	2	"	30c	Hugh Walker & Son, Guelph.	.....	3.22	0.84	.....	"
"	10	"	...	30355	G. M. Woods, Church St., Toronto.	2	"	20c	Unknown.....	.....	3.02	0.68	.....	"
"	10	"	...	30359	H. Wellstead, Toronto....	2	"	20c	Perkins, Jones & Co., Toronto.	.....	2.22	0.58	.....	"
"	13	"	...	30362	T. J. Clifton, Toronto.....	2	"	20c	Clens Bros., Toronto.....	.....	2.31	0.61	.....	"
"	13	"	...	30366	W. J. Colwell.....	1½	"	20c	Dixon Bros., Hamilton, Ont.	.....	3.84	0.91	.....	"
"	14	"	...	30367	J. J. McKnight, Tottenham, ham.	2	"	20c	John Slone, Toronto.....	.....	2.44	0.55	.....	"

District of Manitoba—R. W. Earl, Inspector.

May	16	Maple Sugar....	25851	T. Minello, Winnipeg.....	3	cakes,	15c...	Bright & Johnson, Winnipeg.	.....	2.95	0.77	.....	Genuine.
"	16	"	25852	D. Black, Winnipeg.....	3	"	15c...	Telfer Bros., Winnipeg....	.....	0.24	0.11	0 04	Adulterated.
"	16	"	25853	Thos. Hurtley & Co., Winnipeg.	3	"	15c...	Not given.....	.....	0.29	0.14	0 04	"
"	16	"	25854	J. G. Hargrave, Winnipeg.	3	"	30c...	Bright & Johnson, Winnipeg.	.....	2.58	0.85	.....	Genuine.
"	16	"	25855	M. Valentine, Winnipeg..	3	"	15c...	Telfer Bros., Winnipeg....	.....	0.78	0.38	0 29	Adulterated.

8-9 EDWARD VII., A. 1909

RECORD OF MAPLE SUGAR SAMPLES ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY.

District of Manitoba—R. W. Earl, Inspector—Con.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Address of Manufacturer of Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Pre- cipitate.	Total Ash.		
1907.										
May 17	Maple Sugar....	25856	J. R. Van Norman, Winni- peg.	3 lb., 60c.....	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.62	0.88	.....	Genuine.
" 17	"	25857	Finch & Co., Winnipeg...	1½ " 30c.....	Eastern Townships, Maple Sugar Assoc.	...	3.66	1.08	.....	"
" 17	"	25858	J. R. Clement, Winnipeg..	2 " 40c.....	Jobin Marin & Co., Win- nipeg.	.....	3.16	0.85	.....	"
" 17	"	25859	J. A. Parks, Winnipeg....	3 lb., 75c.	Small, Montreal ....	.....	2.07	0.64	0.28	"
" 17	"	25860	J. A. McKeher, Winnipeg 2½	" 40c.....	Taylor, Quebec. ....	.....	3.66	1.26	.....	"
" 27	"	25865	Mrs. Taylor, Portage la Prairie.	1½ " 15c.....	Not given.....	.....	6.61	1.55	.....	"
" 27	"	25866	C. Costigan, Portage la Prairie.	3 cakes, 15c....	Bright & Johnson, Winni- peg.	.....	3.84	1.24	.....	.
" 27	"	25867	D. Cassel, Portage la Prairie.	3 " 25c....	Telfer Bros., Winnipeg....	...	0.18	0.13	0.07	Adulterated.
" 27	"	25868	A. H. Palmer, Portage la Prairie.	3 " 30c....	Not known.....	.....	2.95	0.13	.....	Genuine.
" 27	"	25869	J. Costigan, Portage la Prairie.	3 " 15c....	Bright & Johnson, Winni- peg.	.....	3.24	0.70	...	"
" 22	"	25861	Martin & Johnson, Bran- don.	3 " 30c....	Wilson Com. Co., Brandon	.....	2.33	0.73	.....	"
" 23	"	25862	J. F. Price & Co., Brandon	3 " 30c....	Maple Tree Producers Assoc., Waterloo, Que.	.....	4.55	1.03	...	"
" 23	"	25863	Smith & Burton	3 " 25c....	E. J. Lee, Sutton, Que....	.....	3.71	1.11	.....	"
" 23	"	25864	T. E. Cornes, Brandon....	3 " 30c....	Wilson Com. Co., Brandon	.....	0.48	0.33	0.29	Adulterated.
" 28	"	25870	R. J. Hopper.....	3 " 30c....	C. R. & A. J. Kinney, Sutton, Que.	.....	2.97	0.97	.....	Genuine.

District of Calgary—R. W. Fletcher, Inspector.

May 14	9	Maple Sugar	28701	J. G. Pratt, Lacombe	20 ounces, 45c	Plunket & Savage, Calgary.	.....	3.55	0.81	.....	Genuine.
"	11	"	28702	R. Bruce Inglis Co., Edmonton.	Ed-1½ lb., 40c	N. J. Cluff, Strathcona	.....	2.84	0.80	.....	"
"	11	"	28703	Hudson Bay Co., Edmonton.	Edmon-1½ " 30c	Maple Tree Producers Assoc., Waterloo, Que.	.....	4.11	0.80	...	"
"	13	"	28704	The Acme Co., Edmonton.	Edmon-3 " 75c	"	.....	2.80	0.73	.....	"
"	13	"	28705	Duncan Bros. & Batters, Edmonton.	3 tins, 75c	"	.....	2.71	0.73	.....	"
"	13	"	28706	Hallier & Aldridge, Edmonton.	Ed-45 ounces, 75c	"	.....	4.35	0.83	.....	"
"	13	"	28707	Matheson & Jacobson, Edmonton.	Ed-1½ lb., 30c	"	.....	4.33	0.80	.....	"
"	13	"	28708	J. H. Morris & Co., Edmonton.	Ed-1½ " 30c	"	.....	2.88	0.85	.....	"
"	13	"	28709	W. Wilkins, Edmonton.	18 ounces, 30c	McCormick, London, Ont.	.....	2.90	0.67	.....	"
"	14	"	28710	Carrothers & Co., Edmonton.	Edmon-1½ " 30c	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.80	0.85	.....	"
"	14	"	28711	A. G. Baahm, Strathcona.	14 " 45c	Unknown	.....	0.97	0.38	0.19	Adulterated.
"	14	"	28712	Baxter & Co., Strathcona.	1 lb., 30c	E. J. Berry, Brome, Que.	.....	2.68	0.73	.....	Genuine.
"	14	"	28713	Ross McDonald, Strathcona.	1½ " 45c	Unknown	.....	3.02	0.66	.....	"
"	22	"	28714	L. T. Newburn & Co., Calgary.	Cal-1½ " 20c	Sugars Co., Limited, Montreal.	.....	0.26	0.18	0.10	Adulterated.
"	22	"	28715	G. T. & J. Galt, Calgary.	1½ " 25c	Sugars Co., Limited, Montreal.	.....	0.93	0.31	0.14	"
May 22	22	Maple Sugar	28716	Wood & Green, Calgary.	2 lb., 40c	B. G. Hall, Barnstown, Que.	.....	3.48	0.77	...	Genuine.
"	22	"	28717	Wing & Kidney, Calgary.	1½ " 30c	G. F. & J. Galt, Calgary.	.....	0.82	0.33	0.07	Adulterated.
"	22	"	28718	Hudson Bay Co., Calgary.	1½ " 30c	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.66	1.02	.....	Genuine.
"	22	"	28719	Copas & Emerson, Calgary.	Cal-1½ " 30c	Unknown	.....	3.40	0.66	...	"
"	22	"	28720	Murdoch Bros., Calgary.	1½ " 30c	G. F. & J. Galt, Calgary.	.....	0.53	0.23	0.06	Adulterated.

District of British Columbia—E. B. Parkinson, Inspector.

April 15	15	Maple Sugar	32024	H. J. Hampton, Granville St., Vancouver.	1 lb., 20c	Eastern Townships Maple Sugar & Syrups Exchange, Sutton, Que.	Guaranteed pure	3.04	0.77	...	Genuine.
"	19	"	32064	Geo. Smith, Mount Pleasant, Vancouver.	1 " 20c	Maple Tree Producers Assoc., Ltd., Waterloo, Que.	Pride of Canada, Absolutely Pure.	5.24	1.06	.....	"

SESSIONAL PAPER No. 14

"	27	"	...	32079	Griggs Bros., Eburne, B. C.	34	"	15c.	.....	Ramsay Bros., Vancouver, B. C.	Marked Maple Sugar on boxes.	5.15	0.81	.....	"
"	27	"	...	32080	City Grocery, Granville St., Vancouver.	1	"	15c.	.....	Maple Tree Producers Assoc., Ltd., Waterloo, Que.	Pride of Canada, Ab- solutely Pure.	4.53	0.88		
"	29	"	...	32081	Ramsay Bros., Powell St., Vancouver.	3	"	20c.	..	Vendor.	Marked Maple Sugar on boxes.	6.42	1.18	..	"
"	29	"	...	32082	S. T. Wallace, Western Ave., Vancouver.	1	"	20c.	..	Maple Tree Producers Assoc., Ltd., Waterloo, Que.	Pride of Canada, Ab- solutely Pure.	5.11	0.81	..	"

APPENDIX G.

BULLETIN No. 141—MAPLE SYRUP

OTTAWA, July 31, 1907.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to report to you upon an examination of 244 samples of Maple Syrup, collected by our Food Inspectors during April and May of this year. The following synopsis shews the results of analysis :

Inspection District.	Genuine	Doubt-ful.	Maple Flavour	Mixture or Com-pound.	Adul-terated.	Total.
Nova Scotia.....	17	0	1	1	1	20
P. E. Island.....	3	0	0	1	0	4
New Brunswick.....	18	1	0	0	1	20
Quebec.....	20	0	0	0	0	20
St. Hyacinthe.....	20	0	0	0	0	20
Montreal.....	20	0	0	0	0	20
Ottawa.....	15	0	0	2	3	20
Kingston.....	7	0	3	8	2	20
Toronto.....	9	0	3	4	4	20
London.....	12	1	0	0	7	20
Manitoba.....	18	0	1	0	1	20
Calgary.....	18	0	1	0	1	20
British Columbia.....	8	0	7	5	0	20
	185	2	16	21	20	244

Maple syrup has been made the subject of examination on six different occasions during the past eleven years. The work done in 1896 had for its object the special case of glucose substitutes for maple syrup ; the other collections were studied with with reference to substitution of any foreign substance for true maple syrup. The following table gives a resumé, of the results obtained.

Date.	Bulletin Genuine		Doubt-ful.	Adul-terated.	Sold as Com-pound.	Total.
July 1896.....	45	82	8	6	0	96
March 1905.....	102	17	4	76	0	97
May 1905.....	102	44	2	29	0	75
March 1906.....	120	22	2	53	8	85
May 1906.....	120	88	17	57	9	171
May 1907.....	141	185	2	20	37	244

It will be noted that the proportion of adulterated samples is much greater for March 1905 and 1906, than for May of the same years. Expressed as percentage numbers, this fact becomes more striking :

	PERCENTAGE OF	
	Genuine Samples.	Adulterated Samples.
March 1905.	18	78
May 1905.	59	38
March 1906.	26	62
May 1906.	51	33
May 1907.	77	8

It is, of course, to be expected that a large proportion of genuine maple syrup samples should be obtainable immediately after the season of manufacture, than at a later period. It is interesting to note that the fact of inspection appears to have had a beneficial effect upon the character of maple syrup sold in Canadian markets. Comparing the percentages of genuine samples found in May of 1905, 1906 and 1907, we have the numbers, 59, 51 and 77 ; the adulterated samples reported for the same periods are 38, 33 and 8 per cent. respectively. Greater care is taken to label artificial maple products, as mixtures or compounds, or as merely flavoured articles.

The work herein recorded has been done by Mr. Valin ; and I am able to vouch for the care taken in its performance.

I beg to recommend the publication of this report as Bulletin 141.

I have the honour to be,
Sir,
Your obedient servant,

A. MCGILL,
Acting Chief Analyst.

MEMORANDUM.

Maple syrup is the product of the evaporation of the juice or sap of the maple tree to a consistency in which about 28 to 36 per cent. of its weight is water. As far as its solids are concerned, the composition of maple syrup is identical with that of maple sugar.

Of the 20 samples found adulterated, in the present colletion, the adulterant seems to be, without exception, granulated sugar.

The same standard as for maple sugar have been adhered to in judging maple syrup in this bulletin. Description of the method for the detection of the adulteration in maple products will be found in Bulletin No. 140.

On the assumption that a syrup contains 35 per cent. water, the factors are 30·77 for Lead subacetate precipitate and 15·4 for total ash. The determination of the water content in 40 samples of maple syrup gave a maximum of 37·70, and a minimum of 29·05, mean 33·74.

The same conclusion has been reached by C. H. Jones, Chemist, Vermont Experiment Station (Report 1905, p. 330).

A. VALIN.

RECORD OF MAPLE SYRUP SAMPLES ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cstot. Quan- tity.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspection's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate Precipitate.	Total Ash.		
1907.										
District of Nova Scotia—R. J. Waugh, Inspector.										
April 18	Maple Sugar.....	27346	J. J. Skerry, Halifax, N. S.	1 can, 30c.....	Imperial Syrup Co., Montreal, Que.	Sold as Maple Syrup. Labeled Maple Flavored Syrup.	0.24	0.27	.....	Sold as Maple Flavor.
" 19	"	27347	T. Lapierre, Halifax, N. S.	2 " 45c.....	Archer Maple Cane Syrup Co., St. John, N. B.	Sold as Maple Syrup. Labeled Archers Maple Syrup.	0.49	0.10	.....	Sold as Maple Cane Table Syrup.
" 22	"	27348	De Wolfe et Lamont, Kentville, N. S.	2 bots., 40c. . .	Josiah Corkum, North River Road, N. S.	Sold as Country Made Syrup.	3.32	0.86	..	Genuine.
" 22	"	27349	Dodge & Co., Windsor, N. S.	1 pt., 25c.....	D. K. Gilbert, Gilbert's Mountain, N. S.	Sold as pure.	2.76	0.67	.....	"
May 1	"	27350	C. M. Roberts, Parrsboro, N. S.	1 " 25c.....	Wm. Henwood, Newville, N. S.	Sold as pure.	3.75	0.90	.....	"
" 2	"	27351	A. G. Purdy, Springhill, N. S.	1 " 20c.....	Gordon Gilroy, Leamington, N. S.	"	4.09	0.83	.....	"
" 2	"	27352	H. J. Smith, Springhill, N. S.	1 " 15c.....	J. W. Hunter, Leamington, N. S.	"	3.44	0.84	...	"
" 2	"	27353	Rodger & Soley, Springhill, N. S.	1 " 15c.....	Unknown.....	"	3.53	0.81	....	"
" 6	"	27354	D. McLaughlin, Parrsboro, N. S.	1 " 15c.....	Amos Hannah, Halifax River, N. S.	"	5.32	0.96	.....	"
" 6	"	27355	W. C. Anderson, Halifax, N. S.	1 " 40c....	Unknown.....	Sold as Pure Quebec Syrup.	2.93	0.76	.....	"
" 6	"	27356	Larder Hulby & Co., Halifax, N. S.	1 qt., 60c....	Unknown. Furnished by A. W. Westover, Sutton Junction, Que.	Sold as Pure Quebec Syrup.	2.40	0.61	.....	"
" 6	"	27357	Archibald & Son, Halifax, N. S.	1 pt., 25c.....	Unknown. Furnished by A. W. Westover, Sutton Junction, Que.	Sold as Pure Quebec Syrup.	3.23	0.81	...	"

RECORD OF MAPLE SYRUP SAMPLES ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quan- tity. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
							Lead Sub- acetate. Precipitate.	Total Ash.		
District of Nova Scotia—R. J. Waugh, Inspector—Concluded.										
1907.										
May	6 Maple Syrup.	27358	W. J. Hopgood, Halifax, N. S.	1 pt., 25c.	Unknown. Supplied by D. F. Archibald, Athol, N. S.	Sold as pure.	3.20	0.58	.....	Genuine.
"	"	27359	B. O. Bishop, Dartmouth, N. S.	1 bot., 25c.	New England Maple Syrup Co., Stansbury, Vt., U. S.	Golden Tree Brand, sold as pure.	0.17	0.12	0.24	Adulterated.
"	"	27360	W. A. Adams, Halifax, N. S.	1 " 35c.	Unknown ...	Sold as Pure Quebec Syrup.	2.86	0.63	.....	Genuine.
"	"	27333	E. McKenzie, Springhill, N. S.	1 pt., 15c.	J. Corkum, Springhill N. S.	Sold as pure.	3.93	0.64	.....	"
"	"	27334	E. McKenzie, Springhill, N. S.	1 " 15c.	Hibbert Hunter, Leamington.	Sold as pure.	3.07	0.81	...	"
"	"	27361	H. M. Watson, Wolfville, N. S.	1 bot., 50c.	Wm. Poyzant, Gaspareaux Mountains, N. S.	.....	4.15	0.75	.....	"
"	"	27362	J. H. Barss, Wolfville, N. S.	1 pt., 25c.	D. R. Gilbert, Gilbert's Mountain, N. S.	.....	5.66	1.38	...	"
"	"	27363	Porter Bros., Wolfville, N. S.	1 bot., 40c.	Godard Bros., Elgin, N. B.	Labeled Pure Maple Syrup.	4.67	0.98	...	"
District of Prince Edward Island—T. Moore, Inspector.										
1907.										
April 19	Maple Syrup.	28399	A. Bowness, Kensington.	3 pts., 60c.	Standard Syrup Co., Burlington.	.....	2.98	0.53	.....	Genuine.
"	"	28400	R. Taplin, Kensington.	3 cans, 42c.	Archer Maple Cane Syrup, St. John, N. B.	Sold as Maple Cane Syrup. This sample is being sold by nearly all dealers in town and country as Maple Cane Syrup.	0.04	0.06	...	Sold as Maple Cane Syrup.

May	2	Maple Syrup.....	31119	Mrs W. F. Carter, Charl- lottesville.	60c....	Edward McKenzie, Spring- hill, N.E.....	2.98	0.58	Genuine.
"	4	"	31120	Wm Clark, North-Wilt- shire, P.E.I.	"	Vendor.....	2.98	0.53	"

1907.

District of New Brunswick---J. C. Ferguson, Inspector.

April	10	Maple Syrup.....	24350	W. H. Dunham, 115 Main St., St. John, N.B.	3 bottles, 90c.	Goddard Bros., General Merchants, Elgin, Albert N.B.	Bottled by Vendor from 5 gal. cans.	3.62	0.95	Genuine.
"	10	"	24351	R. Jones, 576 Main St. John, N.B.	3 " 60c....	Wilfred Fenwick, City Market.	Bottled by Vendor from 5 gal. cans.	4.18	0.99	"
"	11	Small's Maple Leaf Brand	24352	Walter Gilbert, Corners, Charlotte and Princess, St. John, N.B.	3 cans, quarts, \$1.20	Canada Maple Exchange, Montreal.	Pure Maple Syrup, selected by furnish- ers.	2.05	0.63	"
"	11	Maple Syrup.....	24353	Geo. S. Williams, City Market Stall 22, John, N.B.	3 jars, 50c....	Martin Carty, Elgin, Al- bert Co., N.B.	This package is war- ranted to contain strictly pure Maple Syrup.	4.76	1.00	"
"	11	"	24354	J. E. Quinn, City Market, Stall, F. F., St. John N.B.	3 " 70c....	Wm. Shampier, Kingston, N.B.	Pure Maple Syrup....	2.77	0.76	"
"	23	"	24377	Daniel A. Vail, Broad St., Sussex, N.B.	3 bout., 25c....	Goddard Bros., Elgin, Albert Co., N.B.	Samples taken from 5 gallons can. (Goddard Bros.' card on can. No marks.	3.13	0.76	"
"	26	"	24381	Jas Mailer, Public Square, Newcastle, N.B.	3 " 60c....	Goddard Bros., Elgin, Albert Co., N.B.	Sample taken from 1 gal. can. No label or marks.	3.13	0.86	"
"	30	"	24282	B. A. Mowatt, Main St., Campbellton, N.B.	3 " 25c....	H. Lavallée, St. Jean Port Joli Co. L'Islet, Que.	Sample taken from 1 gallon can. No label or marks.	1.95	0.46	0 23 Doubtful.
"	30	"	24383	W. H. Marquis & Co., Water St., Campbellton, N.B.	3 " 30c....	Goddard Bros., Elgin, Albert Co., N.B.	Sample taken from 5 gallons can. No label or marks.	4.67	0.80	Genuine.
"	25	"	24378	Steeves & Allanach, Main St., Moncton, N.B.	3 " 40c....	Henzon & Horsman, Lutz- Mountain, Westmore- land, Co., N.B.	Sample taken from 5 gallons can. No label or marks.	3.07	0.61	"
"	25	Lower Canada Maple Syrup...	24379	Geo. O. Stratton, 233 Main St., Moncton, N.B.	3 " 30c....	J. H. Harris & Co., Mon- cton, N.B.	Label on both sides of can. Lower Canada Maple Syrup.	2.89	0.87	"
"	25	Maple Syrup.....	24380	Geo. A. Robertson, Main St., Moncton, N.B.	3 " 32c....	Henzon & Horsman, Lutz- Mountain, Westmore- land, Co., N.B.	Sample taken from 5 gallons can. No la- bel.	2.98	0.67	"

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
								Lead Subacetate.	Total Ash.		
1907.											
District of New Brunswick—J. C. Ferguson, Inspector—Concluded.											
May	9 Maple Syrup.....	29503	A. L. Bradley, Water St., St. Stephen, N. B.	3 bottles,	25c...	A. Claxton, Tower Hill, David's Parish, Charlotte Co., N.B.	No label on package...	0.99	0.11	0.19	Adulterated.
"	11 "	29504	Jno. McKnight, Regent St., Fredericton, N.B.	3 "	75c...	W. Movers, Bear-Island, N.B.	Label, "Pure Maple Honey."	4.52	0.95	.....	Genuine.
"	11 "	29505	W. R. Logan, Queen St., Fredericton, N. B.	3 "	75c...	Inch & Fripp, Fripp, N.-B.	Label "Pure Maple Honey."	4.40	0.78	.....	"
"	14 "	29506	Sullivan Bros., Main St., Woodstock, N.B.	3 "	30c...	Garret, & Stafford, Sutton, Que.	Pure Maple Syrup ...	3.90	0.87	.....	"
"	14 "	29507	W. S. Skillen, Main St., Woodstock, N.B.	3 "	40c...	Clifford Everett, Woodstock Parish, N.B.	No label	4.03	1.06	.....	"
"	16 "	29508	Geo. W. Warnock, Drummond Parish, N.B.	3 "	75c...	Vendor.	Label "Pure Maple Syrup."	3.13	0.64	.....	"
"	16 "	29509	Reni Plourd, Dead Brook Settlement, N.B.	3 "	40c...	Vendor.....	No label	4.59	0.61	.....	"
"	17 "	29510	C. Curless, Grand Falls, N. B.	3 "	40c...	Reni Plourd, St. Leonard's Parish, N.B.	"	5.07	0.84	.....	"
District of Quebec—E. Beland, Inspector.											
April	4 Maple Syrup.....	26191	T. B. A. Pare, St. Joachim, chim.	4 1/2 lb.,	55c...	T. B. A. Pare.....	.....	3.50	0.69	.....	Genuine.
"	4 "	26194	Gaudios Fortin, St. Joachim, chim.	1 pint,	25c...	Gaudios Fortin, St. Joachim, chim.	.....	4.86	1.01	.....	"
"	8 "	26207	T. Julien, 124, St. Quebec.	1 "	15c...	Tremblay, Chateau Richer.	.....	4.55	0.83	.....	"
"	8 "	26208	T. Julien, 124, St., Quebec.	1 "	7c...	Cloutier, Chateau Richer..	.....	5.07	1.04	.....	"

"	16	"	26221	Edmond Clèche, St. Marie, Beauce.	15c...	Thos. Dubois, St. Marie, Beauce.	.....	6.15	0.89	.....	"
"	16	"	26222	Israël Fecteau, St. Marie, Beauce.	15c...	Israël Fecteau, St. Marie, Beauce.	.....	4.95	0.86	.....	"
"	16	"	26223	Thos. Champagne, St. Marie, Beauce.	15c...	Thos. Champagne, St. Marie, Beauce.	.....	5.78	0.89	.....	"
"	16	"	26224	Louis Marcoux, St. Marie, Beauce.	15c...	Louis Marcoux, St. Marie, Beauce.	.....	5.44	0.86	...	"
"	16	"	26225	Joseph Dion, St. Elzéar, Beauce.	15c...	Joseph Dion, St. Elzéar, Beauce.	.....	3.78	0.70	.....	"
"	16	"	26226	Michel Marcoux, St. Elzéar, Beauce.	15c...	Michel Marcoux, St. Elzéar, Beauce.	.....	5.55	0.81	.....	"
"	16	"	26227	Gustave Turcotte, St. Marie, Beauce.	15c...	Gustave Turcotte, St. Marie, Beauce.	.....	4.15	0.89	.....	"
"	16	"	26228	Honoré Gosselin, St. Marie, Beauce.	15c...	Honoré Gosselin, St. Marie, Beauce.	.....	4.92	0.90	.....	"
"	18	"	26229	Michel Bilodeau, St. Marie, Beauce.	10c...	Michel Bilodeau, St. Marie, Beauce.	.....	3.16	0.98	.....	"
"	18	"	26237	Clovis Mercier, St. Marie, Beauce.	15c...	Clovis Mercier, St. Marie, Beauce.	.....	3.69	0.86	.....	"
"	18	"	26231	George Gagné, St. Marie, Beauce.	15c...	George Gagné, St. Marie, Beauce.	.....	4.49	0.90	.....	"
"	18	"	26232	Armas Dupuis, St. Marie, Beauce.	15c...	Armas Dupuis, St. Marie, Beauce.	.....	6.20	0.86	.....	"
"	22	"	26242	F. X. Pagnet, 54, Côte du Palais, Quebec.	8c...	Barthélemi Delisle, Pont Rouge.	.....	4.12	0.89	.....	"
"	22	"	26243	Joseph Savard, 35, Jean St., Quebec.	15c...	Pierre Bouchard, Ange Gardien.	.....	3.87	0.90	.....	"
"	22	"	26244	A. Grenier, 94, St., Quebec.	16c...	F. Gagnon.....	.....	3.56	0.81	...	"
"	22	"	26245	A. Grenier, 94, St., Quebec.	18c...	Unknown.....	.....	3.01	0.78	...	"

1907.

District of St. Hyacinthe--J.-C. Rouleau, Inspector.

April 16	Maple Syrup	21 H. J. Elliot, South Dur-	1 can, 65c...	B. R. Elliot, Ulverton.....	Pure Maple Syrup and guar. pure by maker. No label.....	2.70	0.56	.....	Genuine.
"	16	22 H. J. Elliot, South Dur-	1 qt., 15c...	Jas. Duffy, Dauby.....	"	3.75	0.76	.....	"
"	17	23 E. C. Atkinson, Mel-	1 can, 75c...	Fred. Cummings, Ulverton.	"	3.07	0.61	.....	"
"	17	24 J. Bourque, Windsor Mills.	1 jar, 50c...	J. Sinms, St. François de Brompton.	"	5.69	1.13	.....	"
"	18	25 Paul Tourigny, Victoria-	1 qt., 25c...	Pierre Hamel, Warwick...	"	2.83	0.63	...	"
"	18	26 D. O. Bourbeau, Victoria-	1 " 18c...	M. Courtois, Arthabaska-	"	4.44	1.04	...	"

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
				Quantity.	Cents.			Lead Sub acetate.	Total Ash.		
1907.											
District of St. Hyacinthe—J. C. Rouleau, Inspector Concluded.											
April 19	Maple Sugar.	27	Joseph Demers, Thetford.	1 qt., 25c.	25c.	J. Moore, Kennears Mills.	No label.	3.20	0.80	.....	Genuine
" 20	"	28	H. J. Johnson, Minton.	1 gal., \$1.10.	\$1.10.	Vendor	"	3.01	0.68	..	"
" 20	"	29	Fortunat Denis, Martinville.	1 pint., 11c.	11c.	"	"	3.60	0.86	.....	"
" 20	"	30	Mathias Fournier, Comp-ton.	1 gal., 25c.	25c.	"	"	2.89	0.55	.....	"
" 20	"	31	E. N. Chaddock, Cook-shire.	1 qt., 25c.	25c.	"	"	2.61	0.76	.....	"
" 22	"	32	F. X. Lajoie, St. Lilloire	1 pint, 10c.	10c.	Clovis Quintal, St. Li-boire.	"	3.09	0.70	.....	"
" 24	"	33	Maple Tree Producers As-sociation, Waterloo.	2 bottles, gratis	gratis	Vendors.	"	2.67	0.56	.....	"
" 24	"	34	P. A. Portelaunce, Farn-ham.	1 pint, 15c.	15c.	M. Parisien, L'Ange Gar-dien, de Rouville.	"	3.01	0.80	.....	"
" 25	"	35	Mrs. Ant. Sabourin, St. John, Que.	1 " 13c.	13c.	Nap. Pratte, L'Ange Gar-dien de Rouville.	"	2.76	0.56	.....	"
" 27	"	36	Octave Papillon, St. Ours.	1 " 10c.	10c.	Vendors.	"	4.58	0.80	.....	"
" 27	"	37	Wm Lavallée, Ste. Vie-toire.	1 " 10c.	10c.	"	"	2.98	0.61	.....	"
" 27	"	38	Oct. Potvin, St. Ours.	1 " 10c.	10c.	"	"	3.16	0.87	..	"
" 27	"	39	Louis Sylvestre, Berthier-en-Haut.	1 " 10c.	10c.	"	"	2.98	0.70	.....	"
May 1	"	40	Buzzell Bros, Cowansville.	1 can, 75c.	75c.	J. Laraba & Sons, Cowans-ville.	Guaranteed Pure Syrup	3.67	0.67	.....	"

1907.

District of Montreal—J. J. Costigan, Inspector.

April 5	Maple Syrup.....	31641	Jno. Caldwell & Co., 173, McGill St., Montreal.	1 tin, 90c....	Maple Produce Assoc., Ltd., Waterloo, Que.	Labelled, "Country Club Maple Syrup. Absolutely Pure"....	2.58	0.72	.....	Genuine.
"	"	31642	Jno. Caldwell & Co., 173, McGill St., Montreal.	1 " 80c....	J. Laraba & Son, Cowansville, Que.	Labelled, "Guaranteed Pure".....	3.23	0.81	.....	"
"	"	31643	Canada Maple Exchange, 618, Beaudry St., Montreal.	3 " 96c....	Canada Maple Exchange..	Labelled, "Selected Maple Syrup".....	2.09	0.61	.....	"
"	"	31644	Canada Maple Exchange..	3 " 48c....	Canada Maple Exchange..	Labelled, "Selected Maple Syrup".....	2.36	0.61	.....	"
"	"	31645	E. Brais, 743, St. Lawrence St., Montreal.	3 bottles, 50c....	A. Desautels, St. Hilaire.	Guaranteed Pure.....	3.26	0.72	.....	"
"	"	31646	R. L. Watkins, 789 St. Lawrence St.	3 " 50c....	Brown Co., Maple Product Co.	"	2.52	0.87	.....	"
"	"	31647	Leduc et Frère, Valleyfield, Que.	1 qt., 30c....	J. Thibault, Franklin....	Sold as pure.	3.53	0.78	.....	"
"	"	31648	Richer & Daoust, Valleyfield, Que.	1½ pint, 20c....	Not known.....	"	2.86	0.81	.....	"
"	"	31649	G. Champoux Joliette, Que.	1½ " 15c....	O. Drouin, Kildare.....	"	3.56	0.80	.....	"
"	"	31650	Malo Bros, Joliette, Que....	1½ " 15c....	L. Chevette, Kildare.....	"	4.27	0.87	.....	"
"	"	31651	C. Barette, Joliette, Que..	1½ " 20c....	J. Stafford, Kildare....	"	3.44	0.76	.....	"
"	"	31652	Narcisse Hebert, St. Marc.	1 qt., 25c....	Vendor.....	"	3.10	0.92	.....	"
"	"	31653	B. Hervieu, L'Assomption.	1 " 25c....	"	"	4.21	0.89	.....	"
"	"	31654	Emile Joinette, St Joseph du Lac.	1 " 25c....	"	"	3.69	0.83	.....	"
"	"	31655	Ergèle Desrochers, St. Thomas, Joliette.	1 " 25c....	"	"	3.32	0.75	.....	"
"	"	31656	B. Villeneuve, St. Eustache.	1 " 25c....	"	"	2.86	0.61	.....	"
"	"	31657	Ernest Villeneuve, St. Eustache.	1 " 25c....	"	"	4.30	0.92	.....	"
"	"	31658	Geo. Martel, L'Assomption	1 " 25c....	"	"	3.69	0.84	.....	"
"	"	31659	Pringle, Stark & Co., Huntingdon, Que.	3 jars, 30c....	Wm. Arthur	"	3.04	0.65	.....	"
"	"	31660	Jas Brown, Huntingdon...	1 tin, 75c.....	J, Woods	"	3.07	0.72	.....	"

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT LABORATORY.

Date of Collection.	Nature and Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
								Lead Sub acetate Precipitate.	Total Ash.		
District of Ottawa - E. Belisle, general Inspector and A. E. Sanderson, Inspector.											
April 6	Maple Syrup.	32356	L'Institute Colonial Franco Canadian, Ironsides, Que.	1 qt.,	40c...	Vendor.....	Guaranteed Pure.....	3.38	0.73	.....	Genuine.
" 6	"	32357	L'Institute Colonial Franco Canadian, Ironsides, Que.	1 "	40c...	"	"	3.69	0.83	.....	"
" 8	"	32358	A. F. Richard, Chelsea-Road, Que.	1 "	35c...	"	"	3.10	1.01	.....	"
" 9	"	32360	G. W. Armstrong, Cornwall wall.	1 "	40c...	Not known. Sugars, Ltd, Montreal.	Bought for Pure	0.43	0.21	0.32	Vendor said that he bought for pure Maple Syrup and afterwards said it was made by Sugars, Ltd., Montreal and marked Compound.
" 9	"	32363	J. E. Chevrier, Cornwall.	1 "	35c...	Not known.....	Sold as pure.....	3.01	0.92	.....	Genuine.
" 9	"	32364	J. E. Chevrier, Cornwall.	1 "	35c...	"	"	2.30	0.78	.....	"
" 9	"	32365	D. J. McDonald, Cornwall.	1 "	35c...	A. E. Rymond, Sheet's-Island.	Pure Maple Sap Syrup	3.60	0.81	.....	"

15	"	.....	32368	W. J. Eastcott, Bank St., 3 bot., 35c..... Ottawa.	Unknown.....	Vendor sells as a Com- pound.	4.24	1.01	.....	Genuine. Sold to vendor for Pure Maple Syrup, but vendor sells for Com- pound and labels it as a Mixture.
"	"	.....	32369	W. J. Eastcott, Bank St., 3 " 40c..... Ottawa.	E. Caldwell, Knowlton, Warranted Pure .. Que.		2.86	0.65	.....	Genuine.
"	"	.....	32371	Kavanagh Bros., Sparks St., Ottawa.	Hall, Barnstown, Que.	Guaranteed pure by Manufacturer.	3.20	0.63	.....	"
"	"	.....	32373	Bate & Co., Sparks St., Ottawa.	A. W. Weston, Sutton Junction, Que.	Sold as Pure "Maple Leaf Brand."	3.23	0.61	.....	"
"	"	.....	32375	Bryson Graham & Co., Sparks St., Ottawa.	Castle & Co.....	.....	3.56	0.70	.....	"
"	"	.....	32232	F. & H. Bamford, Hawk- esbury, Ont.	Unknown.....	Sold as pure	4.30	0.87	.....	"
"	"	.....	32233	F. Soulière, Aylmer, Que..	J. G. Whyte, Rideau St., Ottawa.	"Regal Brand Choi- cest Quebec Pro- duct Mixture."	0.33	0.30	.....	Sold as Mix- ture.
May	7	.....	32234	Louis Raymond, Hull, Que 1½ qt., 40c.....	E. F. Laframboise, Sainte- Scholastique, Que.	Sold as pure.....	3.01	0.63	.....	Genuine.
"	7	.....	32235	Jos. Martel, Hull, Que....	Henri Lebrun, Belle Ri- vière, Que.	"	2.98	0.67	....	"
"	7	.....	32236	F. Cousineau, Hull, Que ..	From Ste. Scholastique and St. Hernas, Que.....	"	2.61	0.60	.....	"
"	7	.....	32237	D. Savard, Hull, Que.....	Bought from farmers.....	Vendor thinks Syrup not pure.	0.34	0.11	0.14	Adulterated.
"	8	.....	32238	A. Villeneuve, Gatineau Point, Que.	F. X. Lorrain, Gatineau Point.	Sold as pure	1.60	0.40	0.12	"
"	8	.....	32239	A. J. Smith, Point, Que.	Jos. Grant, Ottawa..	Sold as Maple Syrup...	0.71	0.13	0.14	"

1907.

District of Kingston—Jas Hogan, Inspector.

May	2	Maple Syrup..	31076	Albert Glover, Bagot St., 3 qt., 90c..... Kingston.	Small, Montreal ... ..	.....	2.24	0.58	.....	Genuine.
"	2	"	31077	Albert Glover, Bagot St., 3 " \$1.35.. Kingston.	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.18	0.55	.....	"
"	2	"	31081	F. Ostler, Johnston St., 3 " 90c..... Kingston.	Small, Montreal.....	.....	2.24	0.58	.....	"
"	2	"	31083	W. J. Nesbitt, Johnston St., Kingston.	W. Koch, Montreal.....	Maple flavour.....	0.02	0.07	....	Sold as Maple Flavour Sy- rup.
"	2	"	31088	C. Saunders, Princess St., 3 pint., 65c. Kingston.	.....	.....	2.46	0.76	.....	Genuine.

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Samples.	No. of Samples.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.	
				Quantity.	Cents.			Lead Sub-acetate Precipitate.	Total Ash.			
District of Kingston—Jas. Hogan, Inspector—Concluded.												
May	2 Maple Syrup.....	31091	A. W. VanLuven. Princess St., Kingston.	3 chop.,	75c...	Leonard Van Luven & Son, Battersea, Ont.	.....	3.50	0.80	.....	Genuine.
"	3 "	31093	H. A. Fairfield, Front St., Belleville, Ont.	3 "	75c...	W. Koch, Montreal.....	Maple Flavor.....	0.06	0.12	.....	Sold as Maple Flavour.
"	3 "	31098	B. Harker, Front St., Belleville, Ont.	Bel-3 pintes,	90c...	J. Sloan, Belleville.	Defiance Brand Pure Mixture.	0.55	0.18	.....	Sold as Mixture.
"	3 "	31100	G. Pearson, Front St., Belleville, Ont.	Bel-1½ chop.,	45c...	.....	Defiance Brand Pure Mixture.	0.70	0.12	.....	Sold as Mixture.
"	4 "	32405	T. A. Fisher, Williams St., Lindsay.	3 pintes,	75c...	.....	.....	0.41	0.28	0.39	Adulterated.
"	4 "	32408	Adams Bros, Ken. St., Lindsay.	3 "	75c...	.....	Maple Flavor Cabinet Brand.	0.24	0.10	....	Sold as Maple Flavour.
"	4 "	32414	White & Gillespie, George St., Peterboro, Ont.	3 "	60c...	.....	.....	2.80	0.80	....	Genuine.
"	4 "	32419	A. W. Lockhart, George St., Peterboro.	3 "	75c...	Montreal Sugar, Ltd.....	Diamond Brand Mixture.	0.38	0.23	.....	Sold as Mixture.
"	4 "	32421	R. A. Dutton, George St., Peterboro, Ont.	1½ chop.,	45c...	.....	L'Habitant Brand Mixture.	0.21	0.15	....	Sold as Mixture.
"	4 "	32424	R. A. Dutton, Peterboro...	3 pintes,	90c...	Small, Montreal.....	Small's Standard Maple Syrup Mixture.	0.12	0.18	..	Sold as Mixture.	
"	4 "	32425	W. J. Routh, Charlotte St., Peterboro.	3 chop.,	74c...	.....	Diamond Brand Mixture.	0.18	0.15	.....	Sold as Mixture.
"	5 "	32427	H. Burniam, Charlotte St., Peterboro.	3 pintes,	75c...	Muskawa, Hamilton.....	Muskoka Brand Mixture.	0.92	0.26	.....	Sold as Mixture.
"	5 "	32429	J. Heal, Charlotte St., Peterboro.	3 chop.,	75c...	Imperial Syrup, Montreal.	Rock Candy Syrup, Compound.	0.04	0.06	.....	Sold as Compound.

April	5	Maple Syrup.	32431	A. J. Warne, Charlotte St., 3 pints, 75c. Peterboro.	Red Cross, Montreal	.....	0.23	0.15	0.39	Adulterated.
"	5	"	32437	W. H. Hamilton, Peter-3 qt., 75c. boro.	Maple Tree Producers Assoc., Waterloo, Que...	.....	2.46	0.61	.....	Genuine.

1907.

District of London Thos. Kidd, Inspector.

April	16	Maple Syrup.	303302	Sturday & Co., Goderich 1 qt., 25c.	L. S. Perin, London, Ont.	.....	0.93	0.25	0.23	Adulterated.
"	17	"	303303	Casdeno Bros, Seaforth....1 " 35c....	Mrs R. McKenzie, Ver na, Ont.	.....	5.63	0.93	.....	Genuine.
"	18	"	303305	Geo. McLennen, Clinton...1 pint, 20c....	Neil McGregor, town ship Stanley.	.....	5.41	1.12	.....	"
"	18	"	303307	Thos Beacons, Clinton....1 " 25c....	Robt McLivinn, near Wat- ford.	Both samples broken in the transportation				
"	19	"	303308	W. J. Brown, Stratford...1 " 20c....	McCormack, London, Ont.	.....	3.47	0.61	.....	"
"	19	"	303311	M. Durkin, Mitchell ....1 " 15c....	McCormack Mfg Co., Lon- don, Ont.	.....	3.53	0.73	.....	"
"	19	"	303312	Wm Stoneman, Mitchell...1 " 13c.	Lind Kerrigan & Co., Lon- don, Ont.	.....	1.24	0.18	0.30	Adulterated.
"	24	"	303321	G. J. Watts, Thamesville. 1 " 15c....	J. F. Smith, Windsor....	.....	0.32	0.15	0.19	"
"	24	"	303322	R. L. Randell, Thames...1 " 15c....	Mrs. Truesdale, Kent Co.	.....	3.33	0.85	.....	Genuine.
"	25	"	303326	W. R. Everett, Windsor...1 qt., 50c....	J. F. Smith, Windsor.	.....	3.07	0.50	.....	"
"	26	"	303329	Mallam & Acres, St-Tho...1 pint, 15c....	Lind Kerrigan, London, Ont.	.....	0.73	0.08	0.08	Adulterated.
May	1	"	303331	Jno. Kerr, Wingham....1 " 20c....	Jas. Henderson, Athens, Ont.	.....	3.20	0.86	.....	Genuine.
"	1	"	303335	H. G. Lemon, Harrison...1 " 15c....	John Stone, Toronto....	.....	0.32	0.21	0.12	Adulterated.
"	2	"	303338	Jno. Goss, Walkerton. ...1 " 20c....	McCormick Mfg Co., To- ronto.	.....	2.89	0.73	.....	Genuine.
"	3	"	303342	Wm Buckley, Chesley....1 " 25c....	Hugh Walker & Sons, Guelph.	.....	0.15	0.08	0.09	Adulterated.
"	3	"	303345	J. W. McDonald, Liston...1 " 25c....	Jno. Stewart, Molesworth.	.....	4.20	0.92	.....	Genuine.
"	10	"	303357	W. A. Armitage, Toronto. 1 qt., 40c....	McArthur Ewing & Co., Toronto.	.....	2.80	0.58	.....	"
"	15	"	303370	Park Thompson, Toronto...3 glasses, 30c.	J. B. Hall, Coaticook, Que.	.....	2.09	0.37	0.24	Doubtful.

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.	
				Quantity.	Cents.			Lead Sub- acetate Precipitate.	Total Ash.			
1907.												
District of London—Thos Kidd, Inspector—Concluded.												
April 13	Maple Syrup	30365	W. A. Pringle, Beeton	1 pint,	20c	Canada Preserving Co., Hamilton.	.....	1.04	0.37	0.08	Adulterated.
" 13	"	30364	W. J. Wood, Alliston	3 cups,	30c	Elby Blain & Co., Toronto.	Pure Maple Syrup	3.47	0.69	.....	Genuine.
" 14	"	30368	J. D. Elliott, Tottenham	1½ pint,	35c	E. B. Blain, Toronto	.....	3.56	0.76	.....	"
1907.												
District of Toronto—H. J. Dager, Inspector.												
May 8	Maple Syrup	33242	Spencer Smith, Toronto	3 pint,	75c	A farmer at Smith's Falls	.....	4.03	0.95	.....	Genuine.
" 8	"	33243	Joseph Patterson, Toronto	1½ "	30c	Eastern Townships Sugar Exchange, Que.	Labeled as pure	2.52	0.58	.....	"
" 8	"	33244	C. W. Varcoe, Toronto	3 "	45c	Sugars, Ltd, Montreal	Labeled Mixture, sold as Maple Syrup.	0.44	0.21	.....	Sold as Mix- ture.
" 8	"	33245	J. J. Burton, Toronto	1½ "	22c	Warren Bros, Agents, To- ronto.	No label, sold as pure.	0.25	0.18	0.07	Adulterated.	
" 9	"	33246	W. E. Medland, Toronto	1½ "	22c	Medland Bros, Agents, Toronto.	No label, sold as pure.	2.46	0.64	.....	Genuine.
" 9	"	33247	A. A. McKay, Toronto	1 qt.,	30c	J. Lumbers, agent, Toronto	No label	0.48	0.15	0.06	Adulterated.	
" 10	"	33248	W. S. Fry & Co., Toronto	1½ pint,	23c	C. D. Bothwell, L'Avenir, Que.	Labeled as absolutely pure.	3.04	0.80	.....	Genuine.
" 10	"	33249	Gray & Co., Toronto	1 qt.,	30c	Imperial Syrup Co., Mon- treal.	Sold as Maple Syrup. Labeled Compound after purchase was made. Purchaser said it was a mistake.	0.21	0.15	.....	Sold as Com- pound.

SESSIONAL PAPER No. 14

"	10	"	.....	33250	W. Massen, Toronto.....	3 pts., 45c.....	Beaure Maple Co., Que., McLaren Co., agents, Toronto.	Sold as Maple Syrup, Maple Flavour.	0.09	0.10	.....	Sold as Maple Flavour.
"	14	"	.....	33251	W. Rowantree, Toronto Junction.	1 qt., 30c.....	Canada Brokerage Co., To- ronto.	Sold as Maple Syrup...	1.38	0.13	0.22	Adulterated.
"	14	"	.....	33252	J. A. Rice, Toronto.....	1 " 30c.....	McArthur & Ewing, agents, Toronto.	Labeled Eastern Township Pure Maple Syrup.	2.89	0.56	.....	Genuine.
"	17	"	.....	33253	C. F. Brown, East Toronto	2 pts., 45c.....	Rutherford Marshall Co., Toronto.	Forest Brand, Maple Flavour.	0.06	0.12	.....	Sold as Maple Flavour.
"	17	"	.....	33254	J. C. Sharp, East Toronto.	3 " 45c.....	Sugars, Ltd., Montreal....	Diamond Brand Mix- ture.	0.35	0.24	.....	Sold as Mix- ture.
"	20	"	.....	33255	W. H. Rykman, Hamilton.	1 qt., 25c.....	McLaren Cheese Co., To- ronto.	Beauce Brand. After purchase the vendor aid it was Compound Guaranteed pure.....	0.22	0.10	0.25	Sold as Com- pound.
"	20	"	.....	33256	Battrem & Co., Hamilton..	3 " 90c.....	Eastern Township Maple Sugar Exchange, Sutton, Que.		2.69	0.61	.....	Genuine.
"	20	"	.....	33257	J. L. Brown, Hamilton....	1½ pint, 23c....	Sugars, Ltd, Montreal.....	No label.....	0.39	0.20	0.22	Adulterated.
"	20	"	.....	33258	Bain & Adams, Hamilton..	1½ " 30c....	P. Brady, St. Antoine, Que.	Taken from bulk.....	2.46	0.70	.....	Genuine.
"	20	"	.....	33259	P. H. Gage, Hamilton	1½ " 27c....	Eastern Townships Maple Syrup Co., Montreal.		2.80	0.73	.....	"
"	21	"	.....	33260	Jas Osborne & Son, Hamil- ton.	1 qt., 35c.....	Simington, agents.....	Finest Maple Syrup....	6.36	0.80	.....	"
"	21	"	.....	33261	C. Boyle, Dundas.	1 " 30c.....	Wm Koch, Montreal.....	Bottled by Vendor, sold as Maple Flavour.	0.23	0.13	0.26	Sold as Maple Flavour.

1907

District of Manitoba—R. W. Earl, Inspector.

May	15	Maple Syrup.	25806	Campbell Bros & Wilson, Winnipeg.	1½ gal., 45c....	Campbell Bros & Wilson, Winnipeg.	Sold as Maple Flavour.	0.76	0.43	.....	Sold as Maple Flavour.
"	15	"	25807	J. Patterson, Winnipeg...	½ " 80c....	Maple Tree Producers As- sociation, Waterloo, Que.		2.58	0.75	.....	Genuine.
"	15	"	25808	J. A. McKerchar, Winni- peg.	½ " 75c....	R. McRae, Apple-Hill....		3.13	0.81	.....	"
"	16	"	25809	W. R. Francis, Winnipeg..	½ " 80c....	Small, Montreal.....		2.30	0.52	.....	"
"	16	"	25810	Hudson Bay Co., Winni- peg.	½ " 85c....	Maple Tree Producers As- sociation, Waterloo, Que.		3.60	0.81	.....	"
"	16	"	25811	F. E. Meldon & Co., Win- nipeg.	½ " 75c....			2.18	0.69	...	"
"	17	"	25813	W. S. Jeffrey.....	1 qt., 40c.....			3.10	0.90	.....	"
"	17	"	25814	Finch Co., Ltd, Winnipeg..	½ gal., 65c....	Eastern Townships, Sutton, Que.		2.80	0.77	.....	"

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Samples.	No. of Samples.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.	
				Quantity.	(Cents.			Lead Sub- acetate Precipitate.	Total Ash.			
1907.												
District of Manitoba—R. W. Earl, Inspector—Concluded.												
May 17	Maple Syrup.	25815	W. J. Kennedy, Winnipeg.	½ gal.,	75c.	Small, Montreal.	.....	2.15	0.69	.....	Genuine.
" 27	"	25823	C. F. Woodside, Portage la Prairie.	1 qt.,	50c.	Wm Small, Montreal.	.....	2.15	0.70	.....	"
" 27	"	25824	Hudson Bay Stores, Portage la Prairie.	1 "	50c.	Maple Tree Producers Association, Waterloo, Que.	.....	3.32	0.84	.....	"
" 27	"	25825	C. S. B. Burley, Portage la Prairie.	1 "	45c.	Wm Small, Montreal.	.....	2.18	0.66	.....	"
" 22	"	25816	T. R. Horne, Brandon.	1½ pt.,	30c.	Not given.	.....	4.12	0.45	.....	"
" 22	"	25817	Symington & Co., Brandon.	1½ "	30c.	J. D. Knowlton, Ontario.	.....	3.26	0.76	.....	"
" 22	"	25818	Symington & Co., Brandon.	1½ "	30c.	Small, Montreal.	.....	1.97	0.70	.....	"
" 23	"	25819	Mutter & Lynch, Brandon.	1½ "	.....	F. McRae, Ontario.	.....	3.68	0.93	.....	"
" 23	"	25820	W. Dowling & Co., Brandon.	½ gal.	.....	C. R. & A. J. Kunckey, Sutton, Que.	.....	3.20	0.72	.....	"
" 23	"	25821	W. Muir, Brandon.	1½ pt.	.....	A. McDonald, Middleville, Ont.	.....	3.13	0.81	.....	"
" 23	"	25822	J. Bower & Co., Brandon.	½ "	.....	T. Singleton, Toledo, Ont.	.....	3.56	0.89	.....	"
" 28	"	25843	C. J. McClocklin, Carberry.	T. Kennedy, Hallerton, Que.	0.66	9.30	0.27	Adulterated.	

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1907.

District of Calgary—R. W. Fletcher, Inspector.

May	9	Maple Syrup.	28741	Worne & Spice, Lacombe. . .	3 tins,	\$1.05.	Imperial Syrup Co., Montreal.	Maple Flavour..	0.21	0.21	Sold as Maple Flavour.
"	9	"	28742	Campbell & Pitsworth, Lacombe.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.95	0.78	.....	Genuine.
"	11	"	28743	S. Lambert, Edmonton . .	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.61	0.80	.....	"
"	11	"	28744	Capital Mercantile Co., Edmonton.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.10	0.76	.....	"
"	11	"	28745	Hudson Bay Co., Edmonton.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.89	0.76	.....	"
"	13	"	28746	The Acme Co., Edmonton.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.89	0.92	.....	"
"	13	"	28747	Duncan Bros & Batters, Edmonton.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.44	0.70	.....	"
"	13	"	28748	Gariepy & Sasalea, Edmonton.	Ed-1 pint,	60c..	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.01	0.52	.....	"
"	13	"	28749	J. H. Morris & Co., Edmonton.	Ed-3 tins,	\$1.50.	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.76	0.75	.....	"
"	14	"	28750	D. H. Ghormley, Strathecona.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.38	0.70	.....	"
"	14	"	28751	Thos. Naylor, Strathecona	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.89	0.76	.....	"
"	14	"	28752	T. P. Malone, Strathecona.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.98	0.75	.....	"
"	14	"	28753	Cook & Orr, Strathecona.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.95	0.76	.....	"
"	14	"	28754	A. H. Richards & Co., Strathecona.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.95	0.70	.....	"
"	14	"	28755	C. Sugarman, Strathecona.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.47	0.80	.....	"
"	14	"	28756	Baxter & Co., Strathecona.	3	"	Maple Tree Producers Assoc., Waterloo, Que.	.....	3.38	0.70	.....	"
"	14	"	28757	Ross McDonald Co., Calgary.	1 qt.,	65c..	Maple Tree Producers Assoc., Waterloo, Que.	.....	2.44	0.73	.....	"
"	22	"	28758	Calgary Milling Co., Calgary.	1 gal.,	90c..	F. G. Berry, Brome, Que.	.....	2.80	0.67	.....	"
"	22	"	22759	Wing & Kiduly, Calgary.	1	"	F. G. Berry, Brome, Que.	.....	3.32	0.69	.....	"
"	22	"	22760	Hudson Bay Co., Calgary.	1	"	D. S. Perrin, London, Ont.	.....	1.53	0.25	0.44	Adulterated.

RECORD OF MAPLE SYRUP SAMPLES, ANALYZED BY INLAND REVENUE DEPARTMENT
LABORATORY.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Percentage on Dry Substance.		Malic Acid Value.	Remarks.
								Lead Sub- acetate Pre- cipitate.	Total Ash.		

District of British Columbia—E. B. Parkinson, Inspector.

April 15	Maple Syrup.	32022	H. J. Hampton, Vancouver	1 qt.,	45c....	Eastern Townships Maple Sugar and Syrup Exchange, Sutton, Que.	Guaranteed pure by Vendor.	5.81	0.96	.....	Genuine.
" 16	"	32025	Marshall, Smith & Co., Ladner, C.B.	1 "	35c....	Ramsay Bros. & Co., Vancouver.	Empire Brand. Genuine Maple Flavour Syrup.	0.52	0.26	....	Sold as Maple Flavour.
" 18	"	32030	McDowell & Kinnis, Granville St, Vancouver.	3 jars,	30c....	Eastern Townships Maple Sugar and Syrup Exchange, Sutton, Que.	Warranted pure.	4.15	0.80	.....	Genuine.
" 18	"	32031	J. McTaggart, Granville St, Vancouver.	1 qt.,	30c....	G. A. Sanborn, Vancouver.	Canadian Rock Maple Flavour Syrup. Maple Syrup asked for.	0.36	0.17	....	Sold as Maple Flavour.
" 19	"	32032	Geo. Smith, Mount Pleasant, Vancouver.	1 "	50c....	Maple Tree Producers Assoc., Ltd, Waterloo, Bue.	Pride of Canada is a genuine Maple Sap Syrup.	2.76	0.70	....	Genuine.
" 19	"	32033	H.O. Lee, Mount Pleasant, Vancouver.	1 "	25c....	Balfour & Co., Hamilton, Ont.	Tartan Brand Maple Syrup, pure mixture.	1.47	0.30	.....	Sold as Mixture.
" 19	"	42034	W. Clark, Carrol St, Vancouver.	1 "	25c....	Sugars, Ltd, Montreal. ...	Columbia Brand, marketed mixture Bottled by Kelly Douglas, Vancouver.	0.49	0.27	....	Sold as Mixture.
" 22	"	32035	Healey & Vickers, Keefer St, Vancouver.	1 "	30c....	Ramsay Bros, Vancouver..	"Empire Brand" Maple Flavour Syrup, not sold as pure.	0.52	0.21	.....	Maple Flavour.
" 22	"	32037	Woodwards Dept. Store, Hasting St, Vancouver..	1 "	30c....	Ramsay Bros, Vancouver..	"Empire Brand." Maple Flavour Syrup.	1.72	0.21	....	Sold as Mixture.

APPENDIX H.

BULLETIN No. 142—MILK.

OTTAWA, Sept. 24, 1907.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—Milk, which enters so largely into the food of people in health, and forms the almost exclusive food of infants and invalids, is without doubt, the most important single article of diet. When we take into account the ease with which it can be adulterated by skimming and watering, to say nothing of the use of preservatives, dyes, thickeners, and other modes of falsification, it follows that the control of milk production and distribution should receive the attention of the Department of Inland Revenue, as charged with the administration of the Adulteration Act.

This conclusion was evidently arrived at by the late Chief Analyst, Mr. Thomas Macfarlane, and the first official publication issued under his direction had reference to the establishing of a Standard for normal milk. Since October, 1887, when Bulletin No. 1 was issued, there have been 17 bulletins (including the present one) dealing with this subject, published by the Inland Revenue Department. Up to the present time, it has been found impracticable to define, legally, a standard milk. In order to aid in the fixing of such a standard, as well as to show that earnest efforts have been made by the departmental laboratory to secure trustworthy and sufficient data for such a step, I think it well to synoptcize, as briefly as possible, the work recorded in departmental publications, during the past twenty years.

The subject of milk is dealt with in the following Bulletins, issued by this Department :—

No. 1 issued	October, 1887.	No. 53 issued	December, 1897.
" 2 "	December, "	" 61 "	January, 1899.
" 9 "	June, 1889.	" 64 "	May, 1899.
" 11 "	October, "	" 74 "	February, 1901.
" 17 "	September, 1890.	" 80 "	December, 1901.
" 21 "	January, 1891.	" 93 "	February, 1904.
" 28 "	" 1892.	" 121 "	June, 1906.
" 32 "	March, 1893.	" 142 "	September, 1907.
" 43 "	January, 1896.		

SESSIONAL PAPER No. 14

Bulletin No. 1 contains a report upon 162 samples of whole milk, obtained in June, July and August, 1887, under expert supervision, from herds of not less than four cows. The following synopsis of results is of great interest and importance :—

	Nova Scotia.	New Brunswick.	Quebec.	Montreal.	Ottawa.	Toronto.
Number of samples examined.....	32	11	20	33	29	37
Butter Fat—Highest.....	5·40	4·62	4·18	5·17	5·29	4·50
" Lowest	3·00	3·43	3·02	2·80	3·62	2·52
" Average.....	4·24	3·91	3·54	3·82	4·26	3·38
Non-fat solids "	8·48	8·54	8·85	8·47	8·67	8·70
Total solids "	12·72	12·45	12·39	12·29	12·93	12·08
Water	87·28	87·55	87·61	87·71	87·07	87·92

Based upon these results, the Chief Analyst suggested the adoption of the following constants for *Standard Quality Milk* :—

Total Solids.....	12·0 per cent.
Butter Fat.....	3·5 "
Solids other than fat.....	8·5 "

Bulletin No. 2 contains the results of analysis of 105 samples of market milk, as supplied to twelve towns and cities, in September 1887. Nine samples containing above 5·4 per cent fat, are classified as being "partly cream," the remaining samples show the following averages :—

City or Town.	Number of samples.	Water.	Fat.	Non-fat solids.	Total solids.
Halifax, N.S.....	12	88·22	3·51	8·27	11·78
Pictou, N.S.....	5	87·12	3·86	9·02	12·88
St. John, N.B.....	9	88·01	3·96	8·03	11·99
Quebec.....	17	87·84	3·94	8·22	12·16
Montreal.....	14	87·08	3·83	9·09	12·92
Sherbrooke.....	5	86·84	4·31	8·85	13·16
Ottawa.....	6	87·17	4·20	8·63	12·83
Kingston.....	6	88·70	3·15	8·15	11·90
Belleville.....	6	87·26	4·17	8·63	12·80
Toronto.....	5	88·04	3·52	8·44	11·96
Port Hope.....	5	87·74	3·50	8·76	12·26
Peterborough.....	6	88·01	3·87	8·12	11·99
Market Milk.....	96	87·69	3·82	8·49	12·31

Although this collection (from which all samples containing more than 5·4 per cent of fat have been excluded) includes nine samples which are adjudged as "skimmed" and twelve samples which are adjudged as "watered," the average content of butter-fat and total solids fully meets the standard set for genuine milk in Bulletin No. 1.

Bulletin No. 9 contains the results of analysis of 196 samples of market milk, collected in March and April, 1887. Omitting 5 samples which contained more than 5·4 per cent fat, and 41 samples found to be skimmed or watered, the remaining 150 samples give the following averages :—

Water.....	87·42 per cent
Butter-fat	3·79 "
Non-fat solids.....	8·79 "
Total solids.....	12·58 "

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It therefore appears that the limit of 12 per cent for total solids, and 3·5 per cent for butter-fat, as proposed in Bulletin No. 1, cannot be regarded as too high for genuine milk.

Bulletin No. 11. This important report upon 58 samples of milk, obtained in May and June, 1889, is intended to meet the point raised by the Dominion Dairymen's Association, that the standard of 12 per cent total solids, and 3·5 per cent fat proposed by Mr. Macfarlane, might be too high, so far as May and June milk was concerned; although satisfactory as regards the milk supply of other months.

Twenty four herds were examined, the average milk, morning and evening, being analyzed. Omitting one herd of pure Jerseys, whose milk averaged 5·54 per cent fat, and 15·08 per cent total solids, the mean results are :—

Water.....	87·38 per cent.
Butter-fat.....	3·66 "
Non-fat solids.....	8·96 "
Total solids.....	12·62 "

In this Bulletin there also appears the results of examining milk supplied to 16 cheese factories in the neighborhood of London, Ont. These milks include samples known to be skimmed or watered. The average results obtained are as follows:—

Water.....	87·42 per cent.
Butter fat.....	3·80 "
Non-fat solids.....	8·78 "
Total solids.....	12·58 "

When samples known to be skimmed or watered are omitted, these averages become:—

Water.....	87·26 per cent
Butter fat.....	3·93 "
Non-fat solids.....	8·81 "
Total solids.....	12·74 "

As a conclusion from these results, Mr. Macfarlane formally recommends the adoption of 3·5 per cent fat and 12 per cent total solids as a legal minimum for milk of standard quality.

Bulletin No. 17 gives the results of analysis of 165 samples of milk collected in the smaller towns of Ontario in July and August, 1890.

Judged on the basis of 3·5 per cent fat and 12 per cent total solids, the results are as follows :—

	Samples.	Per centage.
Adulterated or inferior.....	68	41
Genuine.....	97	59
Total.....	165	100

Bulletin No. 21 contains the result of analysis of 124 samples of milk from town supplies in Ontario and Manitoba in November, 1891. Judged on the basis of the proposed standard (3·5 per cent. fat and 12 per cent. solids) these were found to be as follows :—

	Analyst.	BELOW STANDARD.		GENUINE.		Total Samples
		Samples.	p. c.	Samples.	p. c.	
Towns in Ontario.....	Ellis.....	35	45	43	55	78
Towns in Manitoba.....	Kenrick...	10	22	36	78	46
		45	36	79	64	124

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Professor Ellis expresses the opinion that it is impossible to assert that a milk has been adulterated with water, if the *solids not fat* are higher than 8 per cent ; or that it has been skimmed if the fat exceeds 2·5 per cent.

Professor Kenrick questions the propriety of adopting any single standard for the whole of Canada.

Bulletin No. 28 gives the results of examination of 133 samples of milk collected in October, November and December of 1891 in the Kingston and London districts of Ontario and in Manitoba and the Northwest. The results may be summarized as follows :—

	Analyst.	BELOW STANDARD.		GENUINE.		Total.
		Samples.	p. c.	Samples.	p. c.	
Kingston district.	Valade.	8	30	19	70	27
London district	Harrison	11	20	43	80	54
Manitoba, &c.	Kenrick	10	20	42	80	52
		29	22	104	78	133

The classification has reference to a standard of 3·5 per cent butter-fat and 12 per cent total solids.

Bulletin No. 32. This contains the results of analysis of 188 samples of milk collected throughout Nova Scotia, Quebec and Ontario in August, September and October, 1892.. The results are summarized as follows :—

	BELOW STANDARD.		GENUINE.		Total.
	Samples.	p. c.	Samples.	p. c.	
Nova Scotia	21	50	21	50	42
Quebec	19	31	43	69	62
Ontario	29	35	55	65	84
	69	37	119	63	188

The classification is based upon a standard of 3·5 per cent fat and 12 per cent total solids.

Bulletin No. 43. This gives the result of analysis of 251 samples of milk collected throughout the Dominion during October, November and December of 1895. These are classified as follows :—

Genuine	181	72 per cent.
Watered.	11	28 "
Partly skimmed	7	
Under average in total solids.	15	
" cream.	18	
" non-fat solids.	19	
Total.	251	100

The following important note, by Mr. Macfarlane, occurs in the text of this Bulletin :—

‘For the information of the public, and in order to obtain greater precision hereafter, it may be well to explain the manner in which I have made use of the above expressions, as regards whole milk. The term *watered* is used, when the non-fatty

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solids are under 8 per cent, and the butter percentage is below the average (3·5), or at least, not above it. When the “non-fat solids” show the normal percentage (8·5) and a lower amount of fat than 3 per cent, it is characterized as “partly skimmed”. When a sample falls below 2 per cent butterfat, the word “skimmed” is used. The expression “under average” has been used for the purpose of indicating those samples whose adulteration cannot be pronounced upon with certainty, but which are, in point of quality, inferior to those marked genuine. “Under average in total solids” is the expression used when the latter fall below 12 per cent and the sample cannot be positively characterized as “watered”. When the fat ranges between 3 and 3·5 per cent, the non-fat solids being normal, the sample is said to be “under average in cream”; and when the non-fat solids fall below 8·25 per cent the sample is said to be “under average” so far as regards the latter constituents.’

Bulletin No. 53. This Bulletin gives the results of analysis of 178 samples, collected throughout the Dominion in September and October 1897. The following is a synopsis :—

	Samples.	Per cent.
Genuine.....	115	65
Adulterated.....	19	11
Under average.....	44	24
	178	100

The classification is based upon the explanations given in Bulletin No. 43.

Bulletin No. 61 contains the results of examination of 74 samples of milk, obtained in towns of Ontario, in October, November and December of 1898. These were found as follows :—

	Samples.	Per cent.
Genuine.....	54	73
Adulterated.....	3	4
Under Average.....	17	23
	74	100

Bulletin No. 64 contains the results of analyzing 29 samples of milk, taken in Montreal, St. Hyacinthe and Sherbrooke, Que, in January and February, 1899.

	Samples.	Per cent.
Genuine.....	21	72
Adulterated.....	8	28
	29	100

This Bulletin also contains a study of the acidity of milk by A. L. Tournhot; and some work on the determination of Lactose and Casein.

Bulletin No. 74 contains the results of analysis of 131 samples, obtained throughout the Dominion, in November and December, 1900.

	Samples.	Per cent.
Genuine.....	104	79
Adulterated &c.....	27	21
	131	100

Preservatives (especially borates) were looked for. None were found.

Bulletin No. 80 contains the results of analysis of 182 samples of milk, taken throughout the Dominion, in September and October, 1901.

	Samples.	Per cent.
Genuine.....	116	64
Adulterated.....	7	4
Doubtful.....	59	32
	182	100

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In this Bulletin, the Chief Analyst gives more precise meaning to the term “Under average in non-fat solids” ; applying it only in cases where the solids not fat are under 8·25 per cent ; but the butter-fat above 3·75 per cent, and the total solids, not under 12 per cent.

Bulletin No. 93 gives the results of analysis of 224 samples of milk, collected in November and December of 1903, throughout the Dominion.

	Samples.	Per cent.
Genuine	159	71
Adulterated	23	10
Under average	42	19
	224	100

Bulletin No. 121. This Bulletin deals with the inspection of skim-milk, buttermilk and cream, as well as with whole milk. Results of analysis of 332 samples of whole milk collected throughout the Dominion in April and May, 1906, are as follows :—

	Samples.	Per cent.
Partly cream	13	4
Genuine	189	57
Adulterated	45	14
Doubtful	85	25
	332	100

Comment.

Bulletins 1 and 11 contain the results of analysis of a very large number of authentic milks ; representative of 165 herds of cows, containing from 4 to more than 50 cows each. The period represented, includes the months of May, June, July and August. The following resumé, gives the results at a glance :—

Locality.		No. of Herds.	No. o Cows.	Average Fat.	Average Total Solids.
Bull. No. 1	Nova Scotia.....	32	203	4·24	12·72
	New Brunswick	11	.....	3·91	12·45
	Quebec	20	167	3·54	12·39
	Montreal and vicinity....	33	466	3·82	12·29
	Ottawa and vicinity	9	326	4·26	12·93
	Toronto and vicinity....	37	(225)+	3·38	12·08
Bull. No. 11, London and vicinity.....		23	680	3·66	12·62
		165	2,067+	3·80	12·62

About 2,500 cows are represented in this synopsis and it is evident that, so far as averages are concerned, the minimum limits of 3·5 per cent fat and 12 per cent solids, are fully justified.

Closer inspection of the results shows that 10 herds (comprising about 118 cows) yielded milk containing less than 3 per cent of fat. (Mean fat = 2·78 per cent) and less than 12 per cent total solids (mean tctal solids = 11·36 per cent).

The lowest butter-fat given by any herd is 2·52 per cent. This is from a herd of 10 cows in the vicinity of Toronto ; and it is noteworthy that the Toronto district shews the poorest quality of milk, an average for 37 herds, numbering about 400 cows, being 3·38 per cent fat, and 12·08 per cent total solids.

Thirty-five herds (numbering about 380 cows) show butter-fat between 3 and 3·5 per cent, the average for this lot being 3·2 per cent. The total solids average about 11·8 per cent.

It will be noted that the work recorded in Bulletins 1, 2, 9 and 11, is made a basis for determining the limits, below which milk should be regarded as “adulterated” within the meaning of the Act. As a result of this study, the late Chief Analyst concluded that 3·5 per cent of butter-fat and 12 per cent. total solids was a reasonable standard. Individual cows failed to meet this standard ; and, indeed, 45 out of 142 herds, reported in Bulletin No. 1, yielded milk containing less than 3·5 per cent fat ; ten (10) of these falling below 3·0 per cent. The fact that the remaining herds yielded milk so much above 3·5 per cent. as to bring the whole up to 3·86 per cent, was held to prove that the average of 3·5 per cent fat could easily be reached by any dairyman who properly selected and properly cared for his stock ; and that the dairyman who purposely selected his cows with regard to quantity of milk, and without reference to quality, should not be permitted, unchallenged, to compete with those who, (constituting the large majority in every province of the Dominion) furnished milk which fully met the requirements of 3·5 per cent fat, and 12 per cent solids.

The work in subsequent bulletins consists of the analyses of market milks, interpreted in terms of the recommended standard.

The following table presents a synopsis of the results, and is important as showing how the adoption of a standard of 3·5 per cent fat and 12 per cent solids, affects the classification of market milk, as sold in Canada.

Number of Bulletin.	Number of Samples.	Genuine (per cent.)	Doubtful (per cent.)	Adulterated (per cent.)
17.....	165	59	19	22
21.....	124	64	26	10
28.....	133	78	7	15
32.....	188	63	22	15
43.....	251	72	21	7
53.....	178	65	24	11
61.....	74	73	23	4
64.....	29	72	11	17
74.....	131	79	18	3
80.....	182	64	32	4
93.....	224	71	19	10
121.....	332	57	29	14
	2,011	66	23	11

INSPECTION of 1907.

The work recorded in the tables now submitted, has been done upon 343 samples of whole milk, collected in July and August of this year. They represent all the inspectoral districts of Canada, with the exception of Manitoba.

I have applied to the interpretation of the analytical results the same standards for fat, total solids, and non-fat solids which my predecessor used in work of this kind. The following table shows, at a glance, the general conclusions.

Inspectoral district.	Total samples.	Genuine		Skimmed or partly skimmed.	Watered.	Doubtful.
		Normal.	Abnormal.			
Nova Scotia.....	30	21	4	1	4	0
P. E. Island.....	15	9	2	3	0	1
New Brunswick	30	22	5	1	2	0
Quebec.....	30	10	10	8	1	1
St. Hyacinthe.....	30	19	4	6	1	0
Montreal	30	9	20	1	0	0
Ottawa	30	19	11	0	0	0
Kingston	30	15	15	0	0	0
Toronto.....	30	3	10	7	8	2
London.....	28	15	13	0	0	0
Calgary	30	27	3	0	0	0
British Columbia.....	30	2	14	9	5	0
	343	171	111	36	21	4
		282				

The average percentage of genuine samples is 82, and is distinctly higher than at any previous inspection. The percentages of genuine samples for each district in regard to the total number of samples collected in that district, are as follows:—

District.	Samples examined.	Genuine.
Nova Scotia	30	83 per cent
P. E. Island.....	15	73 "
New Brunswick.....	30	90 "
Quebec.....	29	69 "
St. Hyacinthe.....	30	77 "
Montreal.....	30	97 "
Ottawa	30	100 "
Kingston.....	30	100 "
Toronto.....	30	43 "
London.....	28	100 "
Calgary.....	30	100 "
British Columbia	30	53 "

It thus appears that the districts of Toronto and British Columbia stand out prominently as those in which the milk supply is of very low quality.

In conclusion, I am of opinion that the standard proposed by the late Chief Analyst in 1887, is a reasonable one, and can easily be met by any dairyman who pays proper attention to his herd. Nor can it be urged that this standard is inapplicable to the summer months. Evidence to the contrary is furnished not alone by the collection specially made for this purpose in 1889 (Bulletin No. 11), but by many subsequent collections, including that now reported.

It is, however, undeniable that some individual cows, and even some herds, yield milk containing less than 3.5 per cent fat. We have on record, ten herds (118 cows) whose milk averaged only 2.78 per cent, and one herd of 10 cows gave only 2.52 per cent fat.

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These herds were in Toronto district (1889) and it will be noted that it is in Toronto district that the poorest showing occurs, in the present inspection. Dr. Ellis, Public Analyst at Toronto, has recorded his opinion that it is impossible to assert that a milk has been adulterated with water, if the *solids not-fat* exceed 8 per cent, or that it has been skimmed, if the fat exceeds 2·5 per cent. This opinion is certainly justified, if certain herds in the Toronto district may be included among normal milk producers.

In the face of what has been recorded I am compelled to admit that while I believe the standards for milk recommended by the late Chief Analyst to be reasonable, and already attained throughout the greater part of Canada, it is impracticable that they could be enforced by legal enactment over the whole of Canada. Without going so far as to say that the cow must herself be consulted in the matter of quality of milk, it is undeniable that the existence of many herds, whose average milk shews less than 3 per cent of fat, and less than 11·5 per cent total solids, makes the universal adoption of a three and a half per cent standard impossible.

It remains, however, quite possible for towns and cities to fix local standards for their own milk supplies. And this, it seems to me, is the proper course to be pursued, at least for the present. In an appendix, I have given a list of cities and towns, in which by-laws regulating the quality of milk which may be sold therein, already exist. That the low quality of milk now produced in certain districts, could be raised to the proposed standard quality, by proper care on the part of dairymen, goes without saying. The natural incentive to needed improvement is, quite evidently, that the cities and towns purchasing such milk, should insist upon their supplies having a fixed minimum value in fat and total solids. The local authorities must of course, be charged with the responsibility of seeing that such enactments are enforced.

The work which this department can do, in aiding the improvement of this most important food substance, is apparently limited to an occasional inspection, throughout the whole country, with a view to ascertaining the general condition of milk supplies. To fix a lower standard than 3·5 per cent fat, and 12 per cent solids, would be to give endorsement to a quality of milk lower than the average quality now produced. I have already given my reasons for believing that it would be impracticable at present to enforce a standard of 3·5 per cent fat, and 12 per cent total solids, over the whole Dominion.

It is to be noted, in conclusion, that the work herein summarized has regard to the nutritive value of milk, i.e. its value as a food. But there is another aspect of the milk problem which ought not to be ignored. The cleanliness of market milk is second only in importance to its nutritive value. Apart from the disgusting character of the impurities which must be present in milk, unless the most scrupulous attention is paid to its production, the danger from disease germs present in it is very great indeed. It is not going too far to say that (omitting dessicated foods) just in proportion to the nutrient value of the material, is its suitability as a medium for the development of microbial life. It is at once apparent that milk may become a most efficient propagating medium for disease germs. The following quotation is from a recent publication of the Bureau of Animal Industry, Washington, D.C.

“EVIDENCE THAT MILK IS A CAUSE OF DISEASE.”

1. It has been shown by the most painstaking investigations, extending over a long period of years, that certain diseases in the animal are communicable through the medium of the milk, this being especially true of tuberculosis, foot-and-mouth disease, anthrax and cowpox; and that diseases like garget, gastro-enteritis and septic fevers in the cow will render the milk morbid to men.

2. It has been shown that animals which have fed on poisonous forage plants or have been treated with strong medicaments are disqualified from producing a pure or sound milk.

3. During the past twenty-five years there have been published in the different medical journals the histories of 195 epidemics of typhoid fever, 99 of scarlet fever and 36 of diphtheria, all traceable to the milk supply.

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In the recent exhaustive investigation conducted by the highest health authority in this country, viz., the United States Bureau of Public Health and Marine-Hospital Service, the commission definitely traced 85 of the 866 cases of typhoid fever (about 10 per cent) in the District of Columbia to the use of infected milk.

4. It has been shown in a former report that in the District of Columbia about one fourth, and in the country at large about one sixth, of all the children born perish before the completion of the first year; that nearly one-half of the deaths in children under 1 year of age are caused by gastro-enteric diseases, chiefly infantile diarrhœa; and that of the 54,047 infantile deaths which have been investigated at home and abroad with reference to feeding, 86·6 per cent had been artificially fed, all of which points with more than mere suspicion to the fact that the morbid agent is introduced into the body with the food (cow's milk).

This phase of the milk question must evidently be left to local action.

I have the honour to be, Sir,

Your obedient servant,

A. MCGILL,

Chief Analyst.

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RECORD OF FOOD SAMPLES—MILK—ANALYZED BY INLAND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Nova Scotia—R. J. Waugh, Inspector.</i>			
Aug. 9	Milk...	33436	J. McDonald, Halifax, N.S.....	1 pint,	4c..	G. H. Madill, Milford, N.S.
" 9	"	33437	H. B. Blois "	1 "	4c..	W. Bryson, Hildon, N.S.
" 9	" ...	33438	W. Taylor "	1 "	4c..	E. Tupper, Hildon, N.S.
" 9	"	33439	J. M. Flemming "	1 "	4c..	A. Fisher, Alton, N.S.
" 9	"	33440	A. L. Theakston "	1 "	4c..	G. Withrow, Shubenacadie, N.S.
" 9	"	33441	G. H. Kent "	1 "	4c..	W. R. McPhee, McKay's Siding, N.S.
" 9	"	33442	Mrs. Hurley "	1 "	4c..	Mr Harvy, Halifax, N.S.
" 9	"	33443	Mrs. A. Cahill "	1 "	4c..	Mr. Clark, City Milk Co., Halifax, N.S.
" 9	"	33444	Mrs. Grant "	1 "	4c..	Scotia Pure Milk Co., City.
" 9	"	33445	Mrs. A. Salkus "	1 "	4c..	G. H. Kent, Halifax, N.S.
" 10	"	33446	Scotia Pure Milk Co., Halifax, N.S..	1 "	4c..	Vendors
" 10	"	33447	G. D. Hogg " ..	1 "	4c..	W. Withrow, Elmsdale, N.S.
" 10	"	33448	P. A. Marryatt, North-west Ave., Halifax, N.S.	1 "	4c..	J. Keddy, Harrietfield, N.S.
" 12	"	33449	Mrs. O. Hondley, Dartmouth, N.S..	1 "	4c..	Mr. Ritchie, Cole Harbour Road, N.S.
" 12	"	33450	Mrs. Bellefontaine " ..	1 "	4c..	Mr. Ritchie, Cole Harbour Road, N.S.
" 12	"	33451	J. R. Grant " ..	1 "	4c..	Vendor ..
" 12	"	33452	W. E. Ford, Halifax, N.S.	1 "	4c..	Mr. Currie, Halifax, N.S.
" 12	"	33453	Jas. Hogan "	1 "	4c..	O. Upham, Halifax, N.S.
" 12	"	33454	P. Lowri "	1 "	4c..	A. Innis, Dartmouth, N.S.
" 14	"	33455	H. A. Boyd, Yarmouth, N.S... ..	1 "	4c.	Not known.....
" 14	"	33456	G. H. Murphy "	1 "	4c..	Vendor
" 15	"	33457	F. W. Wickwire, Kentville, N.S.....	1 "	4c..	"
" 15	"	33458	Capt. Allen " ...	1 "	4c..	"
" 15	"	33459	H. Eagles, Kentville, N.S.....	1 "	4c..	"
" 15	"	33460	J. W. Pyke, Kentville, N.S.....	1 "	4c..	Not known.....
" 16	"	33461	R. W. Mearns, Windsor, N.S.	1 "	4c..	Vendor
" 16	"	33462	J. Muller, Windsor, N.S.....	1 "	4c..	"
" 16	"	33463	C. Dill, Windsor, N.S.....	1 "	4c..	"

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REVENUE DEPARTMENT LABORATORY AND PUBLIC ANALYST.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
Taken from can in delivery.	1·0309	87·16	4·28	8·56	12·84	.....	33436	Genuine.
" " ..	1·0314	87·47	3·91	8·62	12·53	.....	33437	"
" " ..	1·0326	87·74	3·41	8·85	12·26	.....	33438	"
" " ..	1·0278	86·75	5·31	7·94	13·25	.....	33439	"
" " ..	1·0307	86·86	4·59	8·55	13·14	.....	33440	"
" " ..	1·0311	87·53	3·95	8·54	12·47	.....	33441	"
The vendor is a shop-keeper.	1·0295	86·25	5·37	8·38	13·75	.....	33442	"
" " ..	1·0312	88·72	3·18	8·10	11·28	.....	33443	Genuine, under average in total solids.
Sold as pasteurized milk.	1·0314	89·21	2·65	8·14	10·79	.....	33444	Partly skimmed.
The vendor is a shop-keeper.	1·0284	89·33	2·95	7·72	10·67	.....	33445	Watered.
Pasteurized by vendors.	1·0308	88·45	3·25	8·30	11·55	.....	33446	Genuine, under average in total solids.
Sample taken from can in delivery wagon.	1·0303	86·41	5·06	8·53	13·59	.....	33447	Genuine.
" " ..	1·0227	90·03	3·66	6·31	9·97	.....	33448	Watered.
The vendor is a shop-keeper.	1·0269	89·32	3·45	7·23	10·68	.....	33449	"
" " ..	1·0243	85·39	7·27	7·34	14·61	.....	33450	Genuine.
Taken from delivery wagon.	1·0329	86·81	4·15	9·04	13·19	.....	33451	"
The vendor is a shop-keeper.	1·0286	88·44	3·59	7·97	11·56	.....	33452	Genuine, under average in solids not fat.
" " ..	1·0310	87·01	4·40	8·59	12·99	.....	33453	Genuine.
" " ..	1·0322	88·31	3·21	8·48	11·69	.....	33454	Genuine, under average in fat.
Sample taken from can in delivery wagon.	1·0346	85·81	4·87	9·32	14·19	.....	33455	Genuine.
" " ..	1·0325	86·15	4·85	9·00	13·85	.....	33456	"
" " ..	1·0307	87·42	4·11	8·47	12·58	.....	33457	"
" " ..	1·0326	87·41	3·70	8·89	12·59	.....	33458	"
Taken from delivery wagon.	1·0278	89·86	3·31	6·83	10·14	.....	33459	Watered.
The vendor is a shop-keeper.	1·0327	86·63	4·71	8·66	13·37	.....	33460	Genuine.
Taken from delivery wagon.	1·0325	87·09	4·00	8·91	12·91	.....	33461	"
Taken from delivery wagon.	1·0270	86·63	5·46	7·91	13·37	.....	33462	"
Taken from delivery wagon.	1·0316	86·46	4·82	8·72	13·54	.....	33463	"

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Nova Scotia—R. J. Waugh, Inspector—Concluded.</i>			
Aug. 16	Milk.....	33464	T. M. Currie, Windsor, N.S.....	1 pint,	4c..	Vendor
" 16	"	33465	W. Livingstone, Windsor, NS.....	1 "	4c..	T. M. Currie, Windsor
			<i>District of Prince Edward Island—T. Moore, Inspector.</i>			
July 25	Milk.....	31124	A. Mutch, Hopeton.....	1 pint,	3c..	Vendor
" 27	"	31125	T. R. Enman, Charlottetown Royalty	1 "	3c..	"
" 27	"	31126	Hamond Kelley, Southport.....	1 "	3c..	"
" 30	"	31127	Frank Conroy, Souris.....	1 "	3c..	P. McIsaac, Souris Royalty.
Aug. 4	"	31128	Rogers Farquharson, Lot 48, Southport.	1 "	3c..	Vendor
" 4	"	31129	A. R. McKay, St. Peters Road	1 "	3c..	"
" 4	"	31130	Miller Matheson, Charlottetown Royalty.	1 "	3c..	"
" 7	"	31131	G. M. Price, Summerside.....	1 "	3c..	"
" 7	"	31132	L. J. Pickering, Summerside	1 "	3c..	"
" 7	"	31133	Joseph McNeill, Summerside.....	1 "	3c..	"
" 7	"	31134	J. W. Callbeck, Summerside.....	1 "	3c..	"
" 7	"	31135	Thomas Glover, Summerside.....	1 "	3c..	"
" 8	"	31136	W. Wheatley, East Royalty.....	1 "	3c..	"
" 8	"	31137	Victor McMillan, Charlottetown Royalty.	1 "	3c..	"
" 8	"	31138	Cameron & White, Charlottetown....	1 "	3c..	P. Mutch, Lot 48.....
			<i>District of New Brunswick—J. E. Ferguson, Inspector.</i>			
" 1	"	29534	Timothy Desmond, Loch Lomond Road, St. John Co., N.B.	$\frac{1}{3}$ "	5c..	Vendor
" 1	"	29535	Jas Beyea, Black River Road, St. John Co., N.B.	$\frac{1}{3}$ "	5c..	"
" 1	"	29536	S. A. Carpenter, Manawagonish Road, St. John Co., N.B.	$1\frac{1}{2}$ "	9c..	"
" 1	"	29537	Alderbrook Dairy Co., 12 Sydney St., St. John, N.B.	$\frac{1}{3}$ "	5c..	W. V. Darling, Jubilee Sta., King's Co. N.B
" 1	"	29538	Jas. W. Brogan, 10 Brussell St., St. John, N.B.	$\frac{1}{3}$ "	6c..	M. Gibson, Red Head, St. John Co., N.B.
" 2	"	29539	T. M. Davidson's Dairy, Little River Road, St. John Co., N.B.	1 "	5c..	Vendor.....
" 2	"	29540	Jas. Macaulay, Cor. Queen and Wentworth Sts., St. John, N.B.	1 "	7c..	A. E. Macauley. St. John N.B.

INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p.c.	p.c.	p.c.	p.c.			
Taken from delivery wagon.	1·0317	86·62	4·79	8·59	13·38	.....	33464	Genuine.
The vendor is a shop-keeper.	1·0339	87·50	3·60	8·90	12·50	.....	33465	"
.....	1·0344	88·32	2·61	9·07	11·68	.....	31124	Partly skimmed.
.....	1·0321	87·88	3·41	8·71	12·12	.....	31125	Genuine.
.....	1·0324	86·29	4·71	9·00	13·71	.....	31126	"
.....	1·0343	88·54	2·54	8·92	11·46	.....	31127	Partly skimmed.
.....	1·0311	86·89	4·48	8·63	13·11	...	31128	Genuine.
.....	1·0324	86·24	4·65	9·11	13·76	.....	31129	"
.....	1·0312	87·91	3·58	8·51	12·09	.....	31130	"
.....	1·0318	82·96	9·27	7·77	17·04	.....	31131	"
.....	1·0324	88·37	3·11	8·52	11·63	.....	31132	Genuine. Under aver-
.....	1·0334	86·99	3·89	9·12	13·01	.....	31133	Genuine. age in fat.
.....	1·0335	87·85	3·26	8·89	12·15	.....	31134	Genuine. Under aver-
.....	1·0303	87·29	4·30	8·41	12·71	.....	31135	Genuine. age in fat.
.....	1·0330	87·27	3·73	9·00	12·73	.....	31136	Genuine.
.....	1·0329	88·70	2·81	8·49	11·30	.....	31137	"
.....	1·0333	88·56	2·92	8·52	11·44	.....	31138	Partly skimmed.
Sample taken from milk wagon on street while serving customers.	1·0318	87·91	3·44	8·65	12·09	.....	29534	Doubtful as to skim ming.
" "	1·0298	86·84	4·79	8·37	13·16	.....	29535	Genuine.
.....	1·0276	88·20	4·12	7·68	11·80	.....	29536	"
.....	1·0298	86·61	5·00	8·39	13·39	.....	29537	Genuine; under aver-
.....	1·0340	87·73	3·91	8·36	12·27	.....	29538	Genuine. age in solids not fat.
Sample taken from milk wagon on street while serving customers.	1·0308	86·97	4·47	8·56	13·03	..	29539	Genuine.
.....	1·0295	87·85	4·00	8·15	12·15	.....	29540	"
								Genuine; under aver-
								age in solids not fat.

RECORD OF FOOD SAMPLES—MILK--ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of New Brunswick—J. C. Ferguson, Inspector—Con.</i>			
Aug. 2	Milk.	29541	H. M. Floyd, 124 Queen St., St. John, N.B.	1 Pint	7c..	Hanford McKnight, Apohaqui, King's Co., N.B.
" 2	"	29542	W. R. Small, cor. Gorman and Queen St., St. John, N.B.	1 "	7c..	Sussex Milk Co., 38 Sydney St., St. John, N.B.
" 3	"	29543	C. D. Harrington, Milledgeville, St. John Co., N.B.	1 "		Vendor
" 3	"	29544	M. H. Green, Milledgeville, St. John, N.B.	1 "	5c..	"
" 3	"	29545	Chas. N. Huggard, 165 Main St., St. John, N.B.	1 "	7c..	Alfred Freeze, Penobscquis, King's Co., N.B.
" 6	"	29546	Sussex Milk Co., Sussex, King's Co., N.B.	1 "	5c..	McIntyre Bros., Sussex Parish, King's Co., N.B.
" 6	"	29547	Sussex Milk Co., Sussex, King's Co., N.B.	1 "	5c..	H. T. Hays, Sussex Parish, King's Co., N.B.
" 8	"	29548	Moncton Pasteurized Milk Co., Moncton, N.B.	1 "	5c..	Moncton Pasteurized Milk Co., Lewisville, Westmoreland, Co., N.B.
" 8	"	29549	Geo. O. Stratton, 293 Main St., Moncton, N.B.	1 "	5c..	" "
" 9	"	29550	Keating Bros., Chatham, N.B.	1 "	5c..	Vendor
" 9	"	29551	Geo. E. Fisher, Chatham, N.B.	1 "	5c..	"
" 12	"	29552	William Rogers, Bathurst Village, N.B.	1 "	5c..	"
" 12	"	29553	Mrs. Thos. Kennah, St. George St., Bathurst, N.B.	1 "	5c..	"
" 20	"	29554	Clifford Thompson, Old Ridge, St. Stephen, N.B.	1 "	6c..	"
" 20	"	29555	Richard Thomas, Box 272, St. Stephen, N.B.	1 "	6c..	"
" 20	"	29556	G. K. Thomas, St. Stephen, N.B....	1 "	6c..	"
" 22	"	29557	Walter McFarlane, King St., Fredericton, N.B.	1 "	5c..	Vendor, Nashwaaksis, York Co., N.B.
" 22	"	29558	C. J. Bodkin, King St., Fredericton, N.B.	1 "	5c..	Robert M. Gay, Kingsclear, York Co., N.B.
" 22	"	29559	A. D. Gunter, King St., Fredericton, N.B.	1 "	5c..	G. W. Bowder, Nashwaaksis, York Co., N.B.
" 22	"	29560	Fred. P. Robinson, Regent St., Fredericton, N.B.	1 "	5c..	Vendor, Nashwaaksis, York Co., N.B.
" 24	"	29561	Cyrus Vanwart, Woodstock, N.B....	1 "	5c..	Vendor.....
" 26	"	29562	Jno. R. Graham, Grand Falls, Victoria Co., N.B.	1 "	6c..	"
" 26	"	29563	Ward B. Burpee, Grand Falls, Victoria Co., N.B.	1 "	6c..	"

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p.c.	p.c.	p.c.	p.c.			
.....	1·0314	88·00	3·45	8·55	12·00	.....	29541	Genuine.
.....	1·0319	87·40	3·86	8·74	12·60	.....	29542	Genuine.
Sample taken from milk wagon on street	1·0279	88·76	3·60	7·64	11·24	.....	29543	Watered.
" "	1·0282	88·19	3·79	8·02	11·81	.....	29544	Genuine ; under aver- age in solids not fat.
.....	1·0306	88·37	3·31	8·32	11·63	.....	29545	" "
.....	1·0279	88·31	3·07	7·62	10·69	...	29546	Watered.
....	1·0305	87·76	3·86	8·38	12·24	..	29547	Genuine.
Milk is pasteurized. Taken from milk wagon on street while serving cus- tomers.	1·0329	88·18	3·41	8·41	11·82	.....	29548	"
Taken from large can in vendor's store.	1·0337	88·46	2·98	8·56	11·54	..	29549	Probably genuine, un- der average in fat.
Taken from milk wagon on street while serving cus- tomers.	1·0293	86·65	5·06	8·29	13·35	.....	29550	Genuine.
" "	1·0298	88·23	3·57	8·20	11·77	.....	29551	Genuine ; under aver- age in solids not fat.
" "	1·0320	87·64	3·63	8·73	12·36	.....	29552	Genuine.
.....	1·0316	85·54	5·53	8·93	14·46	.....	29553	"
Taken from milk wagon on street while serving cus- tomers.	1·0320	87·73	3·73	8·54	12·27	.....	29554	"
" "	1·0298	86·05	5·42	8·53	13·95	.....	29555	"
" "	1·0294	86·69	5·09	8·22	13·31	.....	29556	"
Sample taken from large can in wagon while delivering milk.	1·0312	85·69	5·67	8·64	14·31	.....	29557	Genuine.
Sample taken from large can in wagon while delivering milk to dairy depot.	1·0327	87·57	3·94	8·49	12·43	....	29558	"
Sample from large can in delivery wagon.	1·0321	87·71	3·78	8·51	12·29	.....	29559	"
" " ..	1·0300	83·70	7·56	8·74	16·30	.....	29560	"
" " ..	1·0319	86·06	4·88	9·06	13·94	.....	29561	"
" " ..	1·0327	88·18	2·83	8·99	11·82	29562	Partly skimmed.
" " .	1·0320	86·87	4·00	9·13	13·13	29563	Gennine.

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RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907			<i>District of Quebec— E. Beland, Inspector.</i>			
July 2	Milk.....	26274	Moise Michaud, 371 Colomb.	1 pint,	5c..	Vendor.
" 25	"	26275	Onezime Turgeon, 193 Latourel.....	1 "	5c..	"
" 25	"	26276	Charles Julien.....	1 "	4c..	"
" 25	"	26277	Cyrile Auger, 129 Caron.....	1 "	4c..	"
" 25	"	26278	Albert Dubois, 1141½ St. Valier..	1 "	4c..	"
" 25	"	26279	Ozariste Bégin, 8 Kirouack... ..	1 "	5c..	"
" 25	"	26280	Napoleon Ruel, 52 Victoria.....	1 "	4c.	"
" 25	"	26281	Charles Dorion, Charlesbourg Trecaré	1 "	4c.	"
" 25	"	26282	Louis Labranche. Limoilou.....	1 "	4c..	"
" 25	"	26283	François Pouliot, 59 St. Luc.....	1 "	5...	"
" 25	"	26284	Narcisse Turgeon, 27 Rigotville	1 "	5c..	"
" 25	"	26285	Charles Mauger, St. Ambroise.....	1 "	5c..	"
" 25	"	26286	Alphonse Légaré, 167 St. Luc.....	1 "	5c..	"
" 25	"	26287	Louis Boucher, 309 Colomb.....	1 "	5c..	"
" 25	"	26288	Narcisse Allard, Ancienne Lorette... 1	"	5c..	"
" 25	"	26289	Achilles Turgeon, 229 D'Aiguillon... 1	"	5c..	"
" 25	"	26290	Jean Bouchard, Stadacona.....	1 "	5c..	"
" 25	"	26291	Alphonse Paradis, Charlesbourg. 1	"	5c..	"
" 25	"	26292	Alexandre Vilneuve, Charlesbourg.... 1	"	5c..	"
" 25	"	26293	Arthur Parent, Charlesbourg Oues t.. 1	"	5c..	"
" 25	"	26294	François Reneaud, St. Ambroise..... 1	"	5c..	"
" 25	"	26295	Joseph Reneaud "	1 "	5c..	"
" 25	"	26296	J. Bt. Vezina "	1 "	5c..	"
" 25	"	26297	Arcarde Caouette, 970 St. Valier..... 1	"	5c..	"
" 25	"	26298	Wilbrod Plamondon, 205 rue Massue. 1	"	5c..	"
" 25	"	26299	Pierre Lepire, Charlesbourg.....	1 "	5c..	"
" 25	"	26300	J. Bt. Thibeault, St. Ambroise..... 1	"	5c..	"
" 25	"	26301	Raymond Bussière, St. Malo.....	1 "	5c..	"
" 25	"	26302	J. Bt. Carrier, Petite Rivière.....	1 "	5c..	"
" 25	"	26303	Ignace, Verret "	1 "	5c..	"

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY—*Continued.*

Inspector's Report.	RESULTS OF ANALYSIS-					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C,	Water.	Butter Fat.	Other Solids.	Total Solids.			
	p. c.	p. c.	p. c.	p. c.	p. c.			
Sample from large can in delivery wagon.	1·0317	88·21	3·00	8·79	11·79	.....	26274	Genuine, below average in fat.
.....	1·0328	87·83	3·40	8·78	12·18	.....	26275	Genuine, under average in fat.
Broken duplicate....	1·0317	87·04	4·03	8·93	12·96	.....	26276	Genuine.
.....	1·0306	87·78	3·33	8·89	12·22	.....	26277	Genuine, under average in fat.
.....	1·0306	88·26	3·07	8·68	11·74	.....	26278	" "
.....	1·0317	87·77	3·75	8·49	12·24	.....	26279	Genuine.
.....	1·0317	87·93	4·23	7·84	12·07	.....	26280	Genuine, under average in non-fat solids.
.....	1·0306	87·53	4·67	7·80	12·47	.....	26281	" "
.....	1·0306	88·15	3·08	8·77	11·85	.....	26282	Genuine, under average in fat.
.....	1·0295	86·97	4·06	8·97	13·03	.....	26283	Genuine.
.....	1·0328	86·80	4·00	9·11	13·20	.....	26284	"
.....	1·0306	86·87	4·14	8·99	13·13	.....	26285	"
Broken duplicate....	1·0349	88·37	2·70	8·93	11·63	.....	26286	Partly skimmed.
" " ..	1·0340	89·10	2·28	8·61	10·89	.....	26287	" "
" " ..	1·0320	88·63	2·61	8·76	11·37	.....	26288	" "
.....	1·0320	88·85	2·86	8·28	11·14	.....	26289	Probably partly skimmed.
One bottle broken....	1·032	88·11	3·54	8·35	11·89	.....	26290	Genuine; slightly below average in total solids
.....	1·0317	87·13	4·20	8·67	12·87	.....	26291	Genuine.
.....	1·0320	89·04	2·69	8·26	10·95	.....	26292	Probably partly skimmed.
.....	1·033	88·33	3·02	8·64	11·66	.....	26293	If genuine; under average in fat.
.....	1·030	89·77	3·19	7·04	10·23	.....	26294	Watered.
.....	1·0319	87·15	3·98	8·87	12·85	.....	26295	Genuine.
.....	1·0330	88·07	3·54	8·39	11·93	.....	26296	"
One bottle broken....	1·036	88·74	2·54	8·72	11·26	.....	26297	Probably partly skimmed.
.....	1·033	87·96	3·19	8·85	12·04	.....	26298	Genuine; under average in fat.
.....	1·033	88·54	2·95	8·49	11·44	.....	26299	Probably partly skimmed.
.....	1·033	87·71	3·87	8·41	12·29	.....	26300	Genuine.
One bottle broken....	1·034	88·51	2·85	8·64	11·49	.....	26301	Probably partly skimmed.
Both samples broken.	.....	.....	.....	.....	.....	.....	26302	
.....	1·0319	87·55	3·52	8·93	12·45	.....	26303	Genuine.

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of St. Hyacinthe— J. C. Roulcau, Inspector.</i>			
Aug. 1	Milk.. ..	61	W. Garceau, Drummondville.....	1 pint,	3c..	Vendor
" 1	"	62	" "	1 "	3c..	J. B. Landry, Drummondville.
" 2	" . . .	63	Elie Lemire, Nicolet.....	1 "	....	Vendor
" 2	"	64	Nap. Desilet "	1 "	....	.....
" 2	"	65	Moïse Guilbert "	1 "	....	.....
" 6	"	66	Jos. Lay, Richmond.....	1 "	....	Vendor
" 8	"	67	Eug. Garneau, Thetford.....	1 "	3c..	"
" 8	"	68	Fred Dodier, Thetford.....	1 "	3c..	Vendor.....
" 10	"	69	Miss Morais, Lennoxville.....	1 "	....	" .....
" 10	"	70	Louis Bergeron, Sherbrooke.....	1 "	....	" .....
" 10	"	71	J. A. Benoit, Sherbrooke.....	1 "	....	Several milkmen.....
" 10	"	72	M. Robertson, Sherbrooke.....	1 "	....	" " .....
" 10	"	73	W. J. Hunt, Sherbrooke	1 "	....	Vendor.....
" 14	"	74	H. Lemaire, St. Jean, Que....	1 "	....	V. Richard, St. Jean..
" 15	"	75	E. Martel, Farnham	1 "	....	Vendor
" 15	"	76	S. Robert, Farnham.....	1 "	....	" .....
" 16	"	77	D. Riendeau, Granby..	1 "	3c..	"
" 16	"	78	S. R. Webster, Granby.....	1 "	3c..	Lewis Doe, Granby...
" 16	"	79	Thos. Hart, Granby.	1 "	3c..	Vendor.....
" 20	"	80	V. Bardier, St. Anne de Sorel.....	1 "	3c..	"
" 20	"	81	N. Crepeau, Sorel.....	1 "	3c..	"
" 20	"	82	J. B. Guevremont, Sorel	1 "	3c..	"
" 20	"	83	P. Mandeville, Sorel.....	1 "	3c..	"
" 20	"	84	N. Salvail, St. Anne de Sorel.....	1 "	3c..	"
" 20	"	85	P. Sabourin, St. Hyacinthe.....	1 "	3c..	"
" 20	"	86	P. Sabourin, St. Hyacinthe..	1 "	3c..	"
" 20	"	87	P. Duhamel, St. Hyacinthe.....	1 "	3c..	Alex. Dauphinais, St. Hyacinthe.
" 21	"	88	W. Chapdelaine, St Hyacinthe.....	1 "	3c..	Vendor
" 23	"	89	Geo. Hulburd, Sweetsburg	1 "	free	"
" 24	"	90	F. X. Laplante, St. Hyacinthe.....	1 "	3c..	J. B. Laplante, St. Hyacinthe.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
.....	1·032	88·51	2·57	8·92	11·49	.....	61	Partly skimmed.
.....	1·032	87·14	3·77	9·09	12·87	.....	62	Genuine.
.....	1·031	87·23	3·80	8·97	12·77	.....	63	"
.....	1·032	87·97	3·02	9·01	12·03	.....	64	Genuine; under average in fat.
.....	1·031	87·15	3·89	8·96	12·85	.....	65	Genuine.
.....	1·033	88·86	2·48	8·66	11·14	.....	66	Partly skimmed.
.....	1·031	87·22	3·90	8·88	12·78	.....	67	Genuine.
.....	1·032	86·98	3·96	9·06	13·02	.....	68	Genuine.
.....	1·030	86·88	4·19	8·93	13·12	.....	69	"
.....	1·033	88·34	2·46	9·20	11·66	.....	70	Partly skimmed.
.....	1·032	86·39	4·19	9·42	13·61	.....	71	Genuine.
Only one sample....	1·028	88·82	3·58	7·60	11·19	.....	72	Watered.
.....	1·031	87·52	3·63	8·85	12·48	.....	73	Genuine.
.....	1·032	88·66	2·58	8·76	11·34	.....	74	Partly skimmed.
.....	1·032	88·59	2·84	8·56	11·41	.....	75	" "
.....	1·031	87·25	4·05	8·70	12·75	.....	76	Genuine.
.....	1·033	86·68	4·01	9·31	13·32	.....	77	"
.....	1·032	87·66	3·35	8·99	12·34	.....	78	" under avg. in fat.
.....	1·033	86·38	4·06	9·56	13·62	.....	79	"
.....	1·0314	87·01	3·69	9·30	12·99	.....	80	"
.....	1·032	88·54	2·93	8·53	11·46	.....	81	Probably partly skim'd
.....	1·0304	87·28	3·42	9·30	12·72	.....	82	Gen., below avg. in fat.
.....	1·0314	87·41	3·31	9·28	12·59	.....	83	" "
.....	1·0304	87·15	3·76	9·08	12·84	.....	84	Genuine.
.....	1·0314	87·03	3·52	9·35	12·87	.....	85	"
.....	1·0324	86·55	4·02	9·43	13·45	.....	86	"
.....	1·0314	86·86	3·71	9·33	13·04	.....	87	"
.....	1·0304	87·11	3·63	9·16	12·79	.....	88	"
.....	1·0324	86·25	4·33	9·32	13·65	.....	89	"
.....	1·0304	87·29	3·68	9·03	12·71	.....	90	"

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Montreal—J. J. Costigan, Inspector.</i>			
July 29	Milk..	32846	Ernest Cousins, Montreal, P.Q.....	1 pint,	4c..	.....
" 29	"	32847	A. Hobbs, St. Laurent, P.Q.....	"	....	.....
" 29	"	33848	N. Robinovitch, 1064 St. Lawrence, Montreal.	"	....	.....
" 29	"	32849	F. L. Mott, 147 Abbott Ave., Westmount.	"	....	.....
" 29	"	32850	O. L. Jasmin, St. Laurent .....	"	....	.....
" 29	"	32851	J. Hannah, Youville.....	"	....	.....
" 29	"	32852	J. McEwan, 1073 Esplanade.Ville St. Louis.	"	....	.....
" 29	"	32853	H. Groulx, St. Laurent, P.Q.....	"	....	.....
" 29	"	32854	John Duncan & Co., Drummond St., Montreal.	"	....	.....
" 29	"	32855	A. Muir, Cote St. Paul.. ..	"	....	.....
" 29	"	32856	R. Gordon, 90 Fairmount, Ville St. Louis.	"	....	.....
" 29	"	32857	John Huckle, 1680 St. Urbain, Ville St. Louis.	"	....	.....
" 29	"	32858	Standard Dairy Co.,Laganchetière st.	"	....	.....
" 29	"	32859	R. Nicholson, Lachine Locks... ..	"	....	.....
" 29	"	32860	C. Muir, 371 Clark, Ville St. Louis..	"	....	.....
" 29	"	32861	A. C. Struthers, 890 Esplanade, Ville St. Louis.	"	....	.....
" 29	"	32862	W. J. Hodge, St. Laurent, P.Q.....	"	....	.....
" 29	"	32863	Geo. Wilson, 686 Albert, Montreal...	"	....	.....
" 29	"	32864	J. Varnier, Verdun.....	"	....	.....
" 29	"	32865	J. C. Hebert, 4 Fairmount, Ville St. Louis.	"	....	.....
Aug. 13	"	32866	E. Lajeunesse, 27 Pontiac, Montreal.	"	....	.....
" 13	"	32867	John McWillie, Youville.....	"	....	.....
" 13	"	32868	Jno. Staines, 1746 St. Urbain, Montreal.	"	....	.....
" 13	"	32869	Emile Guay, 1322 St. Dominique, Montreal.	"	....	.....

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
All of these vendors are duly licensed milkmen for the city of Montreal. Samples were taken from the different wagons whilst on round.	1·0325	87·19	4·10	8·71	12·82	.....	32846	Genuine.
" " ..	1·0315	88·01	3·52	8·48	11·99	....	32847	"
" " ..	1·036	88·08	3·24	8·67	11·92	.....	32848	" below average in fat.
" " ..	1·0336	87·48	3·68	8·84	12·52	.....	32849	Genuine.
" " ..	1·0293	88·04	3·81	8·10	11·91	.....	32850	" under average in total solids.
" " ..	1·0333	87·84	3·16	8·99	12·15	.....	32851	Genuine; under average in fat.
" " ..	1·0322	87·74	3·56	8·70	12·26	.....	32852	Genuine.
" " ..	1·0322	88·16	3·29	8·55	11·85	.....	32853	" under average in fat.
Put up in pint bottle.	1·0322	88·15	3·31	8·54	11·85	.....	32854	Genuine; under average in fat.
.....	1·0312	87·96	3·54	8·51	12·04	.....	32855	Genuine.
.....	1·038	87·66	3·66	8·68	12·34	.....	32856	"
All of these vendors are licensed for city of Montreal with exception of Sample No. 32864 who is licensed for Verdun alone. All samples taken from wagons whilst on round.	1·034	87·43	3·38	9·19	12·57	....	32857	" under average in fat.
" " ..	1·0275	88·84	3·62	7·54	11·16	....	32858	Probably genuine; low in non-fat solids.
" " ..	1·034	88·19	3·13	8·68	11·81	....	32859	Probably genuine; below average in fat.
" " ..	1·0293	88·58	3·49	7·92	11·42	.....	32860	Genuine; under average in non-fat solids.
" " ..	1·033	88·50	3·33	8·17	11·56	.....	32861	Genuine; below average in total solids.
" " ..	1·0322	88·09	3·26	8·64	11·91	.....	32862	Genuine; under average in fat.
" " ..	1·0333	87·94	3·28	8·78	12·06	.....	32863	Genuine; under average in fat.
" " ..	1·034	88·28	3·23	8·49	11·72	.....	32864	Genuine; under average in fat.
" " ..	1·0312	86·67	4·72	8·61	13·32	.....	32865	Genuine.
" " ..	1·032	88·19	3·43	8·38	11·81	.....	32866	" below average in total solids.
" " ..	1·028	88·36	3·80	7·84	11·64	.....	32867	Genuine; under average in non-fat solids
" " ..	1·0303	87·51	3·82	8·67	12·49	.....	32868	Genuine.
.....	1·032	87·98	3·29	8·72	12·01	.....	32869	Genuine, below average in fat.

8-9 EDWARD VII., A. 1909

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Montreal—J. J. Costigan, Inspector—Con.</i>			
Aug. 13	Milk.. ..	32870	Vernon Dairy Co., 199a Laval Ave., Montreal.	1 pint,	4c..	
" 13	"	32871	R. Lackcovitski, 181 Cadieux.....	"	.....
" 13	"	32872	Guy & Frere, Longue Point.....	"	.....
" 13	"	32873	Louis Katzman, 214 St. George.....	"	.....
" 13	"	32874	Joseph Crevier, St. Laurent, P.Q.....	"	.....
" 13	"	32875	Edward Nockle, 1513 St. Hubert, Montreal.	"	.....
			<i>District of Ottawa—J. A. Rickey, Inspector.</i>			
" 1	"	34041	Geo. W. Hicks, Ottawa.....	24 oz.,	5c..	J. & Mrs. A. Moffett, and T. Bain, Merivale.
" 1	"	34042	H. Macartney, Billings Bridge.....	"	.....	Vendor.. ..
" 1	"	34043	Mockett Bros., Gloucester.....	"	.....	" .....
" 1	"	34044	Graham Bros., Britannia.....	"	.....	" .....
" 1	"	34045	R. Magee, Britannia.....	"	.....	" .....
" 1	"	34046	Wm. Gladman.....	"	.....	" .....
" 1	"	34047	E. Honeywell, Westboro.....	"	.....	" .....
" 1	"	34048	Jas. Sorley.....	"	.....	" .....
" 1	"	34049	J. D. Anderson, Gloucester.....	"	.....	" .....
" 2	"	34050	R. Johnson, Hull. . . . .	"	.....	Wm. Armstrong, Hull.
" 2	"	34051	F. Desrochers, Hull.....	"	.....	Vendor.....
" 2	"	34052	Jno. G. Rouleau, Hull.....	"	.....	" .....
" 2	"	34053	Jno. R. Armstrong, Hull.. ..	"	.....	" .....
" 2	"	34054	Thos. Dennison, Hull.....	"	.....	" .....
" 3	"	34055	Ottawa Dairy Co., Ottawa.....	"	.....	Several dairymen
" 6.	"	34056	Wm. Duffy, Carleton Place	24 oz.,	6c..	Vendor
" 6.	"	34057	Marion Stearns, "	"	6c..	"
" 6.	"	34058	C. W. Young, "	"	6c..	"
" 6.	"	34059	J. Hendry, "	"	6c..	"
" 6.	"	34060	Salmon Bros., Smith's Falls	"	6c..	"
" 6.	"	34061	Beckwith Dairy, "	"	6c..	"
" 6.	"	34062	Jas. Edmons, "	"	6c..	"
" 6.	"	34063	J. L. Davis, "	"	6c..	"
" 6.	"	34064	Beckwith Dairy, "	"	6c..	"
" 6.	"	34065	Coughlin Bros., "	"	6c..	"
" 6.	"	34066	Beckwith Dairy, "	"	6c..	"

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY.—Continued.

Inspector's Report.	RESULT OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
.....	1·032	88·53	3·28	8·19	11·47	.....	32870	Genuine, below aver- age in fat.
.....	1·033	88·70	2·81	8·48	11·29	.....	32871	Partly skimmed.
.....	1·030	88·80	2·33	8·87	11·20	.....	32872	Doubtful, below aver- age in fat.
.....	1·0306	87·47	4·08	8·45	12·53	.....	32873	Genuine.
.....	1·0288	88·48	3·61	7·91	11·52	.....	32874	" under average in non-fat solids.
.....	1·0301	88·06	3·90	8·04	11·94	.....	32875	" "
Taken from delivery wagon on street.	1·032	89·03	2·87	8·09	10·97	.....	34041	Genuine, under average in total solids.
" " ..	1·0306	87·80	3·58	8·62	12·19	.....	34042	Genuine.
" " ..	1·0316	87·51	3·68	8·81	12·49	.....	34043	"
" " ..	1·0306	87·05	4·39	8·56	12·95	.....	34044	"
" " ..	1·0319	87·50	3·88	8·62	12·50	.....	34045	"
" " ..	1·0319	87·34	3·73	8·93	12·66	.....	34046	"
" " ..	1·0306	87·74	3·64	8·62	12·26	.....	34047	"
" " ..	1·0306	87·18	3·99	8·82	12·81	.....	34048	"
" " ..	1·0309	87·26	4·07	8·67	12·74	.....	34049	"
" " ..	1·0327	87·61	3·28	9·11	12·39	.....	34050	" under average in fat.
" " ..	1·033	88·07	3·03	8·90	11·93	.....	34051	" "
" " ..	1·0322	87·16	4·05	8·79	12·84	.....	34052	Genuine.
" " ..	1·0312	87·93	3·69	8·38	12·07	.....	34053	"
" " ..	1·031	87·29	4·05	8·66	12·71	.....	34054	"
Taken from whole- saledelivery wagon. Sold in bulk only.	1·032	87·81	3·54	8·66	12·20	.....	34055	"
Taken from delivery wagon on street.	1·0312	87·55	3·88	8·57	12·45	.....	34056	Genuine.
" " ..	1·031	88·08	3·60	8·31	11·91	.....	34057	Genuine ; below aver- age in total solids.
One bottle broken...	1·032	87·77	3·60	8·63	12·23	.....	34058	Genuine.
" " ..	1·0299	87·58	3·90	8·52	12·42	.....	34059	"
" " ..	1·030	87·97	3·54	8·49	12·03	.....	34060	"
Taken from waggon on street. Have 2 dairy farms, owned by syndicate, J. McEwen preside't.	1·032	87·91	3·32	8·71	12·03	.....	34061	" below average in fat.
Taken from wagon on street.	1·030	88·09	3·43	8·47	11·90	.....	34062	" "
" " ..	1·031	88·17	3·41	8·42	11·83	.....	34063	" "
Taken from wagon on street. Same source as No. 34061, only from a differ-ent delivery wagon.	1·031	88·24	3·26	8·49	11·75	.....	34064	" "
Taken from wagon on street.	1·0299	88·10	3·83	8·07	11·90	.....	34065	Genuine ; under aver- age in total solids.
Taken from wagon on street. Sample taken from dairy farm No. 2. Same Co. as Nos. 34061 and 4, J. McEwen president, formerly called Moirs dairy.	1·031	86·75	4·35	8·90	13·25	.....	34066	Genuine.

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Ottawa—J. A. Rickey, Inspector.</i>			
Aug. 8.	Milk.....	34067	Jas. Brady, Perth.....	24 oz.	6c..	Vendor.
" 8.	"	34068	Jno. A. Chaplin, Perth.....	"	6c..	"
" 10.	"	34069	R. A. Watt, Perth.....	"	6c..	"
" 10.	"	34070	Ottawa Dairy Co., Ottawa.....	"	6c..	Several dairymen.....
			<i>District of Kingston—J. Hogan, Inspector.</i>			
July 24.	"	33001	D. Murray, Kingston.....	1 pint,	3c..	Vendor
" 24.	"	33002	C. McConville, "	"	3c..	"
" 24.	"	33003	S. Kirk, "	"	3c..	"
" 24.	"	33004	J. Acton, "	"	3c..	"
" 24.	"	33005	R. Baker, "	"	3c..	"
" 24.	"	33006	W. Gardeners, "	"	3c..	"
" 24.	"	33007	A. B. Gibbons, "	"	3c..	"
" 24.	"	33008	J. Gillespie, Kingston.....	1 "	3c..	"
" 24.	"	33009	G. F. Murton "	1 "	3c..	"
" 24.	"	33010	T. J. Polley "	1 "	3c..	"
" 25.	"	33011	W. Wood "	1 "	3c..	"
" 25.	"	33012	J. Joyce "	1 "	3c..	"
" 25.	"	33013	H. Retten "	1 "	3c..	"
" 25.	"	33014	J. Barrett "	1 "	3c..	"
" 25.	"	33015	J. H. Waller "	1 "	3c..	"
" 25.	"	33016	J. J. Wilmot "	1 "	3c..	"
" 25.	"	33017	D. D. Rodgers "	1 "	3c..	"
" 25.	"	33018	J. Snook "	1 "	3c..	"
" 25.	"	33019	A. E. Weller "	1 "	3c..	"
" 26.	"	33020	J. W. Andrews, Belleville Front.....	1 "	3c..	City Dairy
" 26.	"	33021	T. H. Waldron, Belleville.....	1 "	3c..	Vendor.....
" 26.	"	33022	J. Little "	1 "	3c..	"

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
	p. c.	p. c.	p. c.	p. c.	p. c.			
Taken from wagon on street.	1·030	87·87	3·77	8·36	12·13	.....	34067	Genuine; under aver- age in non-fat solids.
" " ..	1·030	87·73	3·84	8·43	12·27	.....	34068	" "
" " ..	1·030	87·63	3·60	8·77	12·37	.....	34069	Genuine.
Taken from retail de- livery wagon. Sold only in pint and quart bottles.	1·030	87·77	3·45	8·78	12·23	.....	34070	"
Taken from wagon on street.	1·0316	88·09	3·55	8·36	11·91	.....	33001	Genuine; under aver age in total solids.
" " ..	1·0338	88·12	3·28	8·60	11·88	.....	33002	Genuine; under aver- age in fat.
" " ..	1·0327	87·71	3·84	8·45	12·29	.....	33003	Genuine.
" " ..	1·0316	88·75	3·01	8·24	11·25	.....	33004	" "
Duplicate broken in transit.	1·0338	87·30	3·67	9·03	12·70	.....	33005	"
Taken from wagon on street.	1·0316	87·34	4·23	8·43	12·66	.....	33006	"
" " .	1·0316	87·63	3·76	8·61	12·37	.....	33007	"
" " ..	1·0327	87·82	3·30	8·68	12·18	.....	33008	Genuine; under average in fat.
" " ..	1·0338	87·87	3·28	8·85	12·13	.....	33009	" "
" " ..	1·0316	87·83	3·54	8·63	12·17	.....	33010	Genuine.
As brought to fac- tory at Kingston from Pittsburg township.	1·0314	87·47	4·00	8·45	12·45	.....	33011	"
As brought to fac- tory from Kingston township.	1·0255	87·58	5·58	6·84	12·42	.....	33012	Genuine; under average in non-fat solids.
As brought to fac- tory from Pittsburg township.	1·0319	87·82	3·68	8·52	12·10	.....	33013	Genuine.
" " .	1·0311	87·73	3·78	8·49	12·27	.....	33014	"
" " ..	1·0306	87·94	3·47	8·59	12·06	.....	33015	"
" " ..	1·0317	88·04	3·39	8·57	11·97	.....	33016	Genuine; under average in fat.
" " ..	1·0306	87·54	3·82	8·65	12·47	.....	33017	Genuine.
As brought to fac- tory from Kingston township.	1·0295	88·22	3·46	8·33	11·78	.....	33018	Genuine; under average in total solids.
Taken from wagon on street.	1·0306	88·31	3·13	8·57	11·69	.....	33019	Genuine; under average in fat.
" " .	1·033	87·96	3·26	8·78	12·04	.....	33020	" "
" " ..	1·033	87·02	4·02	8·96	12·98	.....	33021	"
" " ..	1·0319	87·33	3·82	8·85	12·67	.....	33022	"

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY INLAND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Kingston—J. Hogan, Inspector.</i>			
July 26.	Milk.....	33023	W. Inshworth, Bellville.	1 pint,	3c..	Vendor
" 26.	"	32024	J. Boyd "	1 "	3c..	"
" 26.	"	33025	J. Knox "	1 "	3c..	"
" 26.	"	33026	Don. Belleker "	1 "	3c..	"
" 26.	"	33027	J. Ketchinson "	1 "	3c..	"
" 26.	"	33028	J. Cooper "	1 "	3c..	"
" 27.	"	33029	T. B. Bulger, Cobourg... ..	1 "	3c..	"
" 27.	"	33030	G. A. Workman "	1 "	3c..	"
			<i>District of Toronto—H. J. Dager, Inspector.</i>			
" 7	"	33281	City Dairy Co., Spadina Crescent, Toronto.	"	....	" .....
" 7	"	33282	John Gibb, 162 Broadview, Toronto..	"	....	Andrew Grant, Scarboro, Ont.
" 7	"	33283	W. W. Pett, 9 Munroe St. " ....	"	....	J. J. Weir, Scarboro, Ont.
" 7	"	33284	J. Mills, 316 Sackville St. "	"	...	Vendor
" 7	"	33285	S. Price & Son, Queen St. East " ....	"	....	" .....
" 7	"	33286	Brennand's Dairy, 314 Gerrard St. East, Toronto.	"	....	John Trull, Darlington P.O.
" 7	"	33287	J. B. Dunlop, 212 Wilton Ave., Toronto.	"	....	Brennand's Dairy.....
" 7	"	33288	John Hummell, 99 Parliament St., Toronto.	"	....	Woburn Dairy Co., Scarboro, Ont.
" 7	"	33289	John Laughlin, 249 Bellwoods Ave., Toronto.	"	....	'Hawkins' (a farmer), Lambton Mills.
" 7	"	33290	M. Factor, 53 Elm St., Toronto.....	"	....	Price & Son, Toronto..
" 8	" ...	33291	F. Halleawell, 190 McCaul St., Toronto.	"	....	Wilson (a farmer), of Scarboro.
" 8	"	33292	E. L. Craggs, 196 Clinton St., Toronto.	"	....	H. Decoff, Downsview, P. O.
" 8	" .	33293	Geo. Brown, 141 Manning Ave., Toronto.	"	....	Wilson (a farmer), at Emery P.O.
" 8	"	33294	J. R. Benson, 290 Bathurst St., Toronto.	"	...	B. Boylen, Downsview P.O.
" 8	"	33295	H. Taylor, 245 Church St., Toronto.	"	....	J. Baird, Scarboro ...
" 13	"	33296	Pure Milk Co., Ltd., 181 John St., North Hamilton.	"	....	Several farmers.
" 13	"	33297	J. O. Rykman, West Cottage, Aberdeen Ave., North Hamilton.	"	....	J. Quinn (a farmer) ...
" 13	"	33298	W. Goodbrand, Waterdown P.O.....	"	....	Vendor
" 13	"	33299	Jno. Rosberry, Cor. York and Park Sts., Hamilton.	"	...	"

SESSIONAL PAPER No. 14

REVENUE DEPARTMENT LABORATORY—*Continued.*

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
	p. c.	p. c.	p. c.	p. c.	p. c.			
Taken from wagon on street.	1·0297	88·98	3·31	7·71	11·02	.....	33023	Genuine; under average in total solids.
" " ..	1·0319	87·27	4·25	8·48	12·73	.....	33024	Genuine.
As brought to factory	1·0341	87·89	3·42	8·69	12·11	.... .	33025	Genuine; under average in fat.
" " ..	1·0308	89·14	3·22	7·64	10·86	.....	33026	Genuine, under average in total solids.
Duplicate broken in transit.	1·031	88·11	3·68	8·21	11·89	.....	33027	Genuine; under average in non-fat solids.
As brought to factory	1·033	87·87	3·56	8·58	12·14	.....	33028	Genuine.
Taken from wagon on street.	1·0319	88·39	3·18	8·43	11·61	.. ..	33029	Genuine; under average in total solids.
" " ..	1·0297	86·11	5·57	8·32	13·89	.....	33030	Genuine.
Sample taken from bottle on wagon on street.	1·031	88·55	3·11	8·34	11·45	.....	33281	Genuine; under average in fat.
Sample taken from 5 gallon can of wagon on street.	1·030	88·78	3·20	8·01	11·21	.....	33282	" "
" " ..	1·032	89·73	2·70	7·56	10·26	.... .	33283	Watered.
" " ..	1·031	89·11	2·76	8·12	10·88	.....	33284	Partly skimmed.
Taken out of bottle of wagon on street.	1·031	88·89	3·01	8·10	11·11	.....	33285	Genuine; below average in fat.
Taken from 5 gallon can of wagon on street.	1·030	88·97	3·10	7·91	11·01	.....	33286	Watered.
" " ..	1·034	88·78	2·39	8·82	11·21	.... .	33287	Partly skimmed.
At vendor's dairy premises.	1·030	89·23	3·30	7·47	10·77	.....	33288	Watered.
" " ..	1·031	89·66	2·33	8·01	10·34	.... .	33289	Partly skimmed.
" " ..	1·030	88·83	2·99	8·18	11·17	.....	33290	Doubtful; probably partly skimmed.
Sample taken from 5 gallon can on wagon on street.	1·028	89·40	2·66	7·94	10·60	.....	33291	Watered.
Sample taken from 5 gallon can at vendor's premises.	1·031	89·03	2·32	8·65	10·97	.....	33292	Partly skimmed.
No. of farmer's can is No. 10.	1·029	89·01	2·74	8·24	10·98	.....	33293	"
.....	1·032	88·38	2·69	8·93	11·62	.....	33294	"
.....	1·028	88·98	3·15	7·87	11·02	.....	33295	Watered.
.....	1·0297	88·43	3·50	8·07	11·57	.....	33296	Genuine; under average in total solids.
.....	1·030	89·15	3·18	7·67	10·85	.....	33297	Watered.
.....	1·030	89·81	1·76	8·43	10·19	.....	33298	Skimmed.
.....	1·029	90·18	2·69	7·13	9·82	.... .	33299	Watered.

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			District of Toronto—H. J. Dager, Inspector.			
Aug. 13	Milk.....	33300	Donald McLean, Clappson Corners P.O.	1 pint,	5c..	Vendors.....
" 13	"	33301	James Newman, Atlantic House, Hamilton.	"	....	" .....
" 13	"	33302	J. H. Cline, 161 Markland St., Hamilton.	"	....	C. E. Cochrane, Hamilton, Ont.
" 13	"	33303	Adam Inch, Hamilton P.O....	"	..	Vendor
" 13	"	33304	J. Anton, 124 Wellington St., North Hamilton.	"	5c..	M. Lyons, Rockchapel, Ont.
" 13	"	33305	Hamilton Dairy Co., Vine St., Hamilton.	"	...	Several farmers.....
" 13	"	33306	Alfred Hack, St. Catharines.....	"	...	Vendor
" 13	"	33307	Jno. Smith, City View Dairy, St. Catharines.	"	....	A. Singer, St. Catharines P.O.....
" 13	"	33308	James Haynes, St. Catharines. ....	"	....	Vendor.....
" 13	"	33309	A. C. Bracken, Box 472, St. Catharines.	"	....	" .....
" 13	"	33310	Chas. Urlocker, Merritton P.O.	"	...	Hoover & Patterson, Thorold P.O.....
			District of London—T. Kidd, Inspector.			
July 26	Milk.....	30376	Samuel Bisset, Goderich.....	1 pint,	5c..	Vendor.....
" 26	"	30377	John Porter.....	"	....	" .....
" 27	"	30379	Daniel Grumet, Harperhay.....	"	....	Daniel Grumet, Tuckersmith Tp.....
" 27	"	30380	McIntosh Bros., Seaforth.....	"	....	Vendors, McKillops Township.....
" 29	"	30382	W. T. Somers, Stratford.....	"	....	W. T. Sommers, Downey Township.
" 29	"	30383	Wm. Cardwell, Stratford.....	"	....	Wm. Cardwell, Eastop P.O.....
" 29	"	30385	W. P. Thistle, St. Mary Road.....	"	....	Vendor.....
" 29	"	30386	Richard McNamara, Stratford.....	"	....	" .....
" 29	"	30391	Henry Mossops, London, Ont....	"	....	" .....
" 30	"	30393	Glover Bros., Glendola P.O., London.	"	....	" .....
" 30	"	30394	J. W. Wilkinson, London. ....	"	....	" .....
" 30	"	30395	Jno. Byne, Sarnia.....	"	....	" .....
" 31	"	30396	James Sinclair, Sarnia Township.....	"	....	" .....
" 31	"	30397	Jerid Moore, Sarnia Township.....	"	...	"
" 31	"	30398	Frank O'Donnell, Sarnia, P.O.	"	...	"
July 31	"	30400	W. A. McGearchey, Sarnia City Dairy	"	....	" .....
Aug. 1	"	30401	A. B. Ellarbic, Chatham Road	"	...	"

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT LABORATORY—*Continued.*

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
.....	1.0306	87.69	3.87	8.44	12.31	.....	33300	Genuine; under aver-
.....	1.034	88.28	3.12	8.60	11.72	.....	33301	age in non-fat solids.
.....	1.030	88.89	3.18	7.93	11.11	.....	33302	Genuine; under aver-
.....	1.0289	87.60	4.03	8.37	12.40	.....	33303	age in fat.
.....	1.027	90.22	2.47	7.30	9.77	.....	33304	" "
.....	1.0289	88.91	3.02	8.07	11.09	.....	33305	Genuine; under aver
.....	1.030	86.95	4.63	8.42	13.05	.....	33306	age in non-fat solids.
.....	1.0311	87.97	3.23	8.80	12.03	.....	33307	Watered.
.....	1.0322	87.55	3.38	9.07	12.45	.....	33308	Doubtful, probably
.....	1.0300	87.10	4.33	8.57	12.90	.....	33309	watered.
.....	1.0327	87.20	3.61	9.19	12.80	.....	33310	Genuine.
Taken from large can on his wagon.	1.0299	86.92	4.53	8.55	13.08	.....	30376	Genuine, below average
Taken from quart bottle in his wagon	1.0306	88.15	3.25	8.60	11.85	.....	30377	in fat.
Taken from large can on his wagon.	1.0330	86.21	4.64	9.15	13.79	.....	30379	Genuine, below average
" "	1.0319	88.08	3.19	8.73	11.92	.....	30380	in fat.
" "	1.0309	86.96	4.28	8.76	13.04	.....	30382	Genuine, under average
Taken from large can on vendor's wagon.	1.0319	87.52	3.67	8.81	12.48	.....	30383	in fat.
.....	1.033	87.95	3.39	8.66	12.05	.....	30385	Genuine.
.....	1.032	87.45	3.39	8.67	12.06	.....	30386	" under average
Bought, from vendor on street.	1.0314	87.45	3.62	8.93	12.55	.....	30391	in fat.
Taken from vendor's wagon on street.	1.030	88.32	3.40	8.27	11.67	.....	30393	Genuine.
.....	1.031	88.65	3.13	8.22	11.35	.....	30394	Genuine, under average
" "	1.032	88.15	3.31	8.58	11.89	.....	30395	in total solids.
.....	1.034	87.99	3.17	8.83	12.00	.....	30396	Genuine, under average
.....	1.034	88.08	3.16	8.75	11.91	.....	30397	in fat.
Taken from vendor's wagon on street.	1.037	88.03	3.42	8.55	11.97	.....	90398	"
.....	1.0314	88.78	3.78	8.44	12.22	.....	30400	Genuine.
One bottle broken. Taken from can in wagon on street.	1.034	87.90	3.20	8.90	12.10	30401	Genuine; below [aver-

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RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of London—T. Kidd, Inspector.</i>			
Aug. 1	Milk.....	30402	Huff Bros., Chatham.....	1 pint, 5c.	....	Vendor.....
" 1	" ..	30403	C. E. Lister, City Dairy, Chatham...	"	....	" .....
" 3	"	30406	R. W. Cook, Windsor....	"	....	" .....
" 3	" ..	30407	Michael O'Brine, Windsor.....	"	....	" .....
" 3	"	30408	C. T. Brundell, Windsor.....	"	....	" .....
" 3	"	30409	Lawyor Bros., Tecumseth P. O. Ont.	"	....	" .....
" 13	"	30412	Henry Norman, St. Thomas.....	"	....	" .....
" 13	"	30413	Jno. Henderson, Yarmot Township..	"	....	" .....
" 13	"	30414	Fred Abbott, St. Thomas.....	"	....	" .....
" 14	"	30420	Thos. Heslop, Ingersoll.....	"	....	" .....
" 14	"	30421	Jerry Pickard, Ingersoll.....	"	....	" .....
			<i>District of Calgary—R. W. Fletcher, Inspector.</i>			
" 17	"	28801	T. W. Tollis, Medicine Hat.....	1 pint,	5c.	.....
" 17	"	28802	Cullen & Ballyantine, Calgary. ....	"	....	.....
" 17	"	28803	McCutcheon Convey, Calgary.....	"	....	.....
" 17	"	28804	L. N. Jones, Calgary.....	"	....	.....
" 17	"	28805	C. T. Eanwiser, Calgary ...	"	....	.....
" 17	" ..	28806	Henry Poffenroth, Calgary .....	"	....	.....
" 17	"	28807	B. J. Newcombe, Calgary.....	"	....	.....
" 17	"	28808	Chas. Carlyle, Calgary.....	"	"	.....
" 17	"	28809	J. E. McDonald, Calgary.....	"	"	.....
" 17	" ..	28810	D. D. Houghton, " .....	"	"	.....
" 17	"	28811	Thos. Laycock, " .....	"	"	.....
" 17	" ..	28812	A. Cliffee, " .....	"	"	.....
" 21	"	28813	Rockview Dairy, " .....	"	"	.....
" 21	"	28814	B. J. Newcombe, " .....	"	"	.....
" 21	" ..	28815	A. J. Pratt, " .....	"	"	.....
" 21	"	28816	K. Cullen, "	"	"
" 21	"	28817	Calgary Dairy Co., "	"	"	H. Cranston, Calgary.
" 21	"	28818	W. J. Iregillns, "	"	"

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INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
Taken from can in wagon in street.	1·034	88·20	3·04	8·75	11·79	.....	30402	Genuine; below average in fat.
" "	1·0312	87·96	3·34	8·70	12·04	.....	30403	Genuine; below average in fat.
.....	1·0322	86·93	4·22	8·85	13·07	.....	30406	Genuine.
.....	1·0312	87·56	4·00	8·63	12·63	.....	30407	"
.....	1·0322	87·49	3·76	8·75	12·51	.....	30408	"
.....	1·0312	85·84	5·64	8·54	14·18	.....	30409	"
.....	1·0325	88·07	3·24	8·69	11·93	.....	30412	Genuine; below average in fat.
.....	1·0312	87·08	4·29	8·63	12·92	.....	30413	Genuine.
.....	1·0290	87·79	4·16	8·05	12·21	.....	30414	"
.....	1·032	87·44	3·54	9·02	12·56	.....	30420	"
.....	1·031	86·43	4·77	8·80	13·57	.....	30421	"
.....	1·032	86·98	4·00	9·02	13·02	Dr. C. J. Fagan.	28801	Genuine.
.....	1·025	81·20	9·75	9·05	18·80	"	28802	"
.....	1·032	86·90	3·81	9·29	13·10	"	28803	"
.....	1·032	87·00	3·60	9·40	13·00	"	28804	"
.....	1·034	87·20	3·44	9·36	12·80	"	28805	"
.....	1·026	84·50	7·37	7·13	14·50	"	28806	Low in solids not fat. Probably cream added.
Driver No. 1.....	1·031	86·65	3·84	9·51	13·35	"	28807	Genuine.
.....	1·032	87·40	3·35	9·25	12·60	"	28808	Genuine.
.....	1·030	86·10	4·80	9·10	13·90	"	28809	"
.....	1·030	84·45	6·40	9·15	15·55	"	28810	"
.....	1·032	86·09	4·23	9·68	13·91	"	28811	"
.....	1·031	85·25	5·50	9·25	14·75	"	28812	"
.....	1·033	87·40	3·25	9·35	12·60	"	28813	"
Driver No. 2.....	1·033	86·55	4·18	9·27	13·45	"	28814	"
.....	1·033	86·75	3·81	9·44	13·25	"	28815	"
.....	1·030	87·20	3·66	9·14	12·80	"	28816	"
.....	1·031	86·40	4·59	9·01	13·60	"	28817	"
.....	1·032	87·90	3·00	9·10	12·10	"	22818	"

RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of Calgary—R. W. Fletcher, Inspector—Concluded.</i>			
Aug. 22	Milk.. . . .	28819	Fitzroy, Calleson & Morphett, Calgary	1 pint	5c ..	.....
" 30	"	28820	Doherty & Hare, Edmonton.....	"	" ..	.....
" 30	"	28821	W. W. Rowley, Calgary.....	"	" ..	.....
" 30	"	28822	H. Wonnacoth, " .....	"	" ..	.....
" 30	"	28823	J. McLin, " .....	"	" ..	.....
" 30	"	28824	E. Smart, " .....	"	" ..	.....
" 30	"	28825	Cancelled.....			.....
" 31	"	28826	A. Berg, Fort Saskatchewan	1 pt.	5c ..	.....
" 31	"	28827	Mrs. Geo. Becker, Fort Saskatchewan.	"	" ..	.....
" 31	"	28828	Mrs. David Simpson, Fort Sask .....	"	" ..	.....
" 31	"	28829	Mrs. W. J. Howard, " .....	"	" ..	.....
Sept. 3	"	28830	A. B. Everts, Wetaskiwin.....	"	" ..	.....
" 3	"	28841	Axie Bengston, Wetaskiwin.....	"	" ..	.....
			<i>District of British Columbia—E. B. Parkinson, Inspector.</i>			
July 29	"	32102	Vancouver Dairy, 965 Seymour St., Vancouver.	1 pint,	5c....	W. Williamson, Sea Island.
" 29	"	32103	J. Metcalfe, 998 Richards St., Vancouver.	"	....	Murphy, Sea Island...
" 29	"	32104	Richmond Dairy Association, Abbott St., Vancouver.	"	....	Not known.
" 29	"	32105	Richmond Dairy Association, Pender St., Vancouver.	"	....	" .....
" 29	"	32106	W. Ratcliff, 2740 Prince Edward St., Vancouver.	"	....	Garvin Bros., Vancouver.
" 30	"	32107	Edmund Hicks, 144 Lansdowne Ave., Vancouver.	"	....	Not known
" 30	"	32108	J. S. Murphy, Eburne, B.C	"	..	A. McRae, Lulu Island
" 30	"	32109	J. Metcalfe, 998 Richards St., Vancouver.	"	..	Murphy, Sea Island...
" 30	"	32110	C. H. Boyer, 1214 Richards St., Vancouver.	"	....	Not known
" 30	"	32111	Richmond Dairy Association, Pender St., Vancouver.	"	D. Jureit, Steveston, B.C.
" 30	"	32112	" " ..	"	J. Smith, Steveston, B.C.

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INLAND REVENUE DEPARTMENT LABORATORY—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
		p. c.	p. c.	p. c.	p. c.			
.....	1.033	88.00	2.83	9.17	12.00	Dr. C. J. Fagan.	28819	Below average in but- ter fat.
Milkman, driver No. 2.	1.032	85.90	4.81	9.29	14.10	"	28220	Genuine.
Milkman, driver No. 1.	1.634	87.00	3.70	9.30	13.00	"	28821	"
Milkman	1.032	85.70	5.10	9.20	14.30	"	28822	"
"	1.015	72.87	18.92	8.21	27.13	"	28823	Partly cream.
"	1.027	85.60	6.00	8.40	14.40	"	28824	Genuine.
.....								
Milkman	1.029	86.20	4.90	8.90	13.80	"	28826	"
"	1.037	86.50	3.50	10.00	13.50	"	28827	"
"	1.037	84.10	6.25	9.65	15.90	"	28828	"
"	1.037	84.50	5.40	10.10	15.50	"	28829	"
"	1.031	87.40	3.70	8.90	12.60	"	28830	"
"		87.10	3.60	8.30	11.90	"	28841	" Sp. gr. could not be taken.
.....	1.030	88.50	2.70	8.80	11.50	C. J. Fagan	32102	Partly skimmed.
Sample No. 1.	1.031	87.60	3.20	9.20	12.40	"	32103	Genuine ; below aver- age in fat.
Vendors purchase milk from several parties and mix all together. This sample as sold to public.	1.030	87.75	3.10	9.15	12.25	"	32104	"
"	1.029	88.37	2.80	8.83	11.63	"	32105	Genuine ; below aver- age in butter fat.
.....	1.028	89.98	2.50	7.52	10.02	"	32106	Watered.
Vendor buys from several parties and mixes all together.	1.026	89.90	2.50	7.60	10.10	"	32107	"
.....	1.030	88.20	3.00	8.80	11.80	"	32108	Genuine ; under aver- age in butter fat.
Sample No. 2. Ven- dor has several wagons, so I took two samples.	1.031	87.50	3.20	9.30	12.50	"	32109	Genuine ; below aver- age in fat.
Vendor buys from several parties and mixes all together.	1.032	87.47	3.30	9.23	12.53	"	32110	"
This sample was taken from the can on its arrival at dairy.	1.030	88.68	2.40	8.92	11.32	"	32111	Partly skimmed.
"	1.031	88.00	3.00	9.00	12.00	"	32112	Genuine ; below aver- age in fat.

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RECORD OF FOOD SAMPLES—MILK—ANALYZED BY

Date of Collection.	Nature of Sample.	No. of sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.
				Quantity.	Cents.	
1907.			<i>District of British Columbia.—E. B. Parkinson, Inspector—Concluded</i>			
July 30	Milk.....	32113	Richmond Dairy Association, Pender St., Vancouver.	1 pint	5c.	J. A. McKinney, Steveston, B.C.
" 30	"	32114	" " ..	"	....	A. McRae, Eburne, B.C.
" 30	"	32115	" " ..	"	...	F. J. Engbaum, Steveston, B.C.
" 30	"	32116	" " ..	"	....	J. McCulloch, Steveston, B.C.
" 31	"	32117	The Valley Dairy, Vancouver .....	"	....	Almond Creamery Co., Vancouver.
" 31	"	32118	W. Kirkby, 934 7th Ave., Mount Pleasant, Vancouver.	"	....	A. W. Wilson, Sea Island.
" 31	"	32119	A. Black, 627 Westminster Ave., Vancouver.	"	10...	Almond Dairy Co.....
" 31	"	32120	A. S. Cosgrove, Fairview, Vancouver	"	5....	Not known
" 31	"	32121	Garvin Bros., Westminster Ave., Vancouver.	"	...	F. Wooster, Westminster Road, Vancouver
" 31	"	32122	A. O. Beath, 542 Cordova St. East, Vancouver.	"	10. .	Jno. McMyne, Hammond, B.C.
" 31	"	32123	Almond Creamery Co., Vancouver...	"	5....	Not known
" 31	"	32124	" " Gore Ave., Vancouver.	"	....	A. Jones, Lulu Island.
Aug. 1.	"	32125	F. Thrussell, New Westminster, B.C.	"	....	Vendor
" 1.	"	32126	F. W. Smith, " "	1 "	5c..	"
" 1.	"	32127	Brehaut & Booth, " "	1 "	5c..	"
" 2.	"	32128	Baby's Own Dairy, Vancouver, B.C..	1 "	5c..	"
" 2.	"	32129	J. Anderton, 16th Ave., Fairview, Vancouver, B.C.	1 "	5c..	J. McLean, Eburne, B. C.
" 2.	"	32130	Cherry Dairy, 2501 Bridge St , Vancouver, B.C. .	1 "	5c..	Steeves, No. 9 Road, Eburne, B.C.
" 2.	"	32131	Wells & Co., Pender St., Vancouver, B.C.	1 "	5c..	Richmond Dairy Association, Pender St., Vancouver, B.C.

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INLAND REVENUE DEPARTMENT LABORATORY—*Concluded.*

Inspector's Report.	RESULTS OF ANALYSIS.					Name of Analyst.	No. of Sample.	Remarks.
	Specific Gravity at 15° C.	Water.	Butter Fat.	Other Solids.	Total Solids.			
	p. c.	p. c.	p. c.	p. c.	p. c.			
This sample was taken from the can on its arrival at diary.	1·030	88·70	2·40	8·90	11·30	C. J. Fagan . . .	32113	Partly skimmed.
" .	1·030	88·20	3·30	8·50	11·80	"	32114	Genuine ; under aver- age in total solids.
" ..	1·030	88·10	3·08	8·82	11·90	" . . .	32115	Genuine ; low in butter fat.
" ..	1·030	88·00	3·20	8·80	12·00	"	32116	Genuine ; below aver- age in fat.
.....	1·027	89·75	2·40	7·85	10·25	"	32117	Watered.
..	1·029	88·00	3·30	8·70	12·00	"	32118	Genuine ; below aver- age in fat.
.....	1·024	93·70	1·50	4·80	6·30	"	32119	Watered.
Vendor purchases from several parties and mixes all to- gether.	1·029	88·00	3·00	9·00	12·00	" . . .	32120	Genuine ; below aver- age in fat.
.....	1·028	89·40	2·33	8·27	10·60	.....	32121	Partly skimmed.
.....	1·029	88·85	2·60	8·55	11·15	.....	32122	"
Vendor purchases from several parties and mixes all to- gether.	1·026	90·20	1·80	8·00	9·80	.....	32123	Skimmed.
This sample taken from can on its arrival at dairy.	1·030	87·83	3·20	8·97	12·17	C. J. Fagan . . .	32124	Genuine ; below aver- age in fat.
.....	1·030	88·96	2·50	8·60	11·10	C. J. Fagan . . .	32125	Partly skimmed.
.....	1·029	88·70	2·55	8·75	11·30	"	32126	"
.....	1·030	86·85	3·70	9·45	13·15	"	32127	Genuine.
.....	1·031	88·28	2·60	9·12	11·72	"	32128	Partly skimmed.
.....	1·030	86·75	3·50	9·75	13·25	"	32129	Genuine.
.....	1·029	88·00	3·20	8·80	12·00	" . . .	32130	Genuine ; below aver- age in fat.
.....	1·020	92·07	2·20	5·73	7·93	"	32131	Watered.

APPENDIX TO BULLETIN 142.

BY-LAWS TO LICENSE AND REGULATE MILK VENDORS IN THE FOLLOWING CITIES:

Halifax—No regulations so far.

Fredericton—No regulations so far.

Charlottetown—An inspector is appointed; inspection of milk as delivered; license fee of \$15 a year; penalties, \$30 or 30 days jail.

St. John, N.B.—Inspection of herds; inspection of premises; inspector appointed; inspection of milk as delivered; vendor shall notify of any disease in family or herd; penalties \$40 and license cancelled. Shall deliver statement of name and address, source or sources of milk supply, number of cows in his possession, quantity of milk disposed of, situation of dairies. Shall not offer skimmed milk unless asked for, and labelled with letters of not less than 2 inches long. Shall furnish certificate from Veterinary Surgeon that cows are free from disease, at least once a year.

Quebec—Has about the same regulations as St. John; but the license fee is only \$1 per annum; and there is a standard for fat of 3 per cent., 12 per cent. total solids and sp. gr. of 1.029 to 1.033 at 60° F. Penalties are \$20.

Montreal—Same as Quebec, but no specification for the sale of skimmed milk.

Hull—Same as above, but the standard for butter-fat is 3.25 and penalties from \$1 to \$50.

Ottawa—Same as Quebec, but 3.5 butter fat.

Kingston—3 per cent. butter fat and 12 total solids; penalty, \$1 to \$50, otherwise the same as Ottawa.

Toronto—3 per cent. butter fat and 12 per cent. total solids; inspector appointed and inspection of milk as delivered.

Brantford—3.5 butter fat and 12 total solids, and same as Toronto.

Hamilton—No standards, but has an inspector appointed for herds, premises, and milk as delivered, and a license fee of \$1 per annum.

Winnipeg—By-laws are in the hands of the printer.

Calgary—3 per cent. butter fat, and same as Hamilton.

Vancouver—Same as St. John, N.B.; 3 per cent. butter fat and a license fee of \$5 per annum and penalties from \$1 to \$100.

Regina—Has about the same regulations as St. John; the license fee is \$5 per annum; and there is a standard of 3.5 per cent for butter fat and 12 per cent. Total solids. Penalties are \$10 a day for each day after having been notified by the Health officer.

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APPENDIX I.

BULLETIN No. 143—DRUGS

CHLORAL HYDRATE, AMMONIUM BROMIDE, PURIFIED CREAM
OF TARTAR

OTTAWA, December 3, 1907.

W. J. GERALD, Esq.,

Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report dealing with 389 samples collected as drugs, and more particularly described as follows:—

	Samples.
Chloral hydrate	129
Ammonium bromide	129
Boracic acid (sold as ammonium bromide)	1
Potassii tartras acidus.	92
Rochelle salt (sold as pot. tart. ac.)	1
Cream of tartar	36
Bi. carbonate of soda (sold as cream of tartar)	1
Total	389

The collections were made in July and August last, and particular instructions were issued to guide the inspectors in their work. Unfortunately these instructions were ignored by four of the inspectors, and, in consequence of this fact, thirty-seven samples of cream of tartar were purchased under that name, a name which is not recognized by the British Pharmacopœia. Cream of tartar is not a drug, although *purified cream of tartar* is an official synonym for potassii tartras acidus. These samples must, therefore, in justice to the vendors, be judged as commercial cream of tartar, and not in terms of the pharmacopœal definition for the purified article.

Descriptive notes precede the tables, and the only other point which deserves mention here is the occurrence of serious blunders in dispensing. When one is served with boracic acid for bromide of ammonium, Rochelle salt for purified cream of tartar, and bi-carbonate of soda for cream of tartar, it is apparent that grave consequences are liable to follow in the filling of medical prescriptions. It will be further noted that one of the samples of bromide of ammonium contains nearly 18 per cent. of ammonio-chloride of mercury.

I think that everything further of importance in regard to these articles will be found in the notes appended to the tables. I have considered it unnecessary to give details of collection in regard to samples of chloral hydrate, since all of these samples were officially pure.

I beg to recommend that this report be published as Bulletin 143.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

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CHLORAL HYDRATE.

In July and August a collection of ten samples of this drug in each Inspectoral district was ordered. One hundred and twenty nine (129) samples were collected.

These were examined by Mr. Lemoine, of this office, and were found in every instance, to come up to the requirements of the British Pharmacopæia. As regards the Soda test, a remarkable homogeneity was found, the volume of normal soda corresponding to 4 grammes of the drug, varying between 29.5cc and 29.9cc. In no case was any trace of chloral alcoholate found; and eighty samples were quite free from chlorides, while the traces obtained in the remaining 49 samples were so small as to be negligible.

The examination shows that this important drug, as supplied in Canada, is of a uniformly high grade.

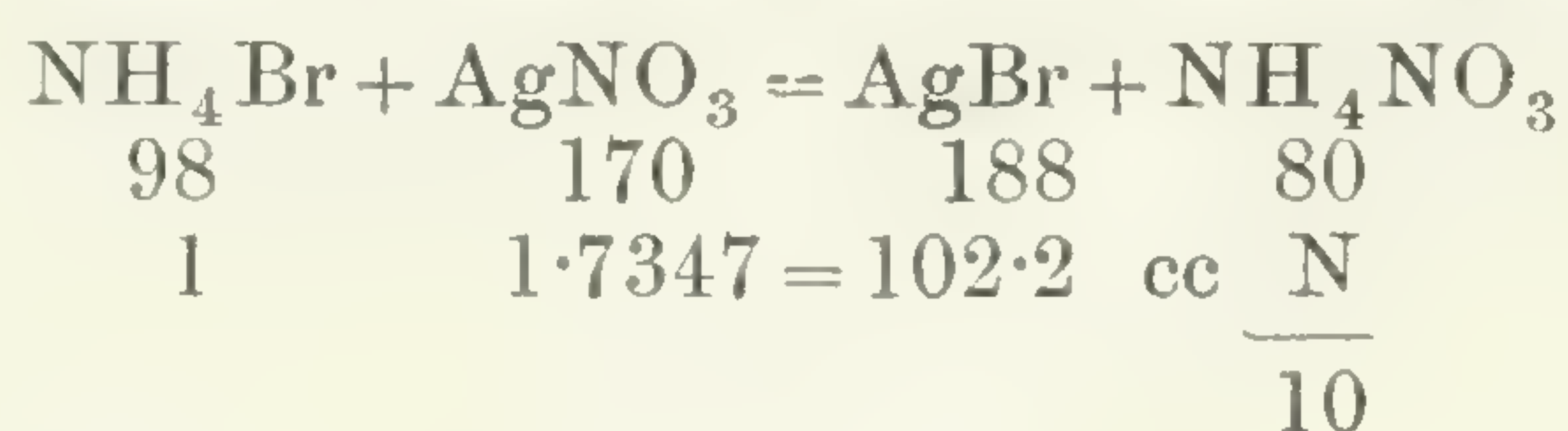
AMMONIUM BROMIDE—(SEE TABLE I).

One hundred and thirty samples were collected in August of this year; being ten in each inspectoral district.

Of these samples, two, namely Nos. 33424 and 29569 are not ammonium bromide. The former contains about 18 per cent of ammoniated chloride of mercury. No. 29569 is boracic acid.

The remaining samples (128 in number) are true to name; but of very different degrees of purity.

The distinctive pharmacopoeal test for the purity of this drug is, titration with volumetric solution of nitrate of silver. The reaction is as follows:—



Hence *one gramme* of chemically pure ammonium bromide should require 102.2 cubic centimetres of the deci-normal solution of silver nitrate for complete decomposition. The closely allied chloride and iodide of ammonium (or other base) react similarly with silver solution. Owing to the lower molecular weight of the chloride, it would require $\cdot 06\frac{1}{3} = 186.9$ cubic centimetres of deci-normal solution to react with 1 gramme; while, the greater molecular weight of iodide would cause only $\cdot 01\frac{1}{4} = 69.0$ cubic centimetres to be used, in the case of the ammonium salts.

It is unlikely that the iodide should be present, as an impurity, on account of its higher value, and for other reasons. As a matter of fact, none of the samples now reported shows a lower titre than 102, except No. 33424, which contains ammonio-chloride of mercury, insoluble in water, and consequently not entering into reaction with the silver test.

The pharmacopoeia provides for traces of chloride as an impurity, and permits samples requiring as high as 103.6 cubic centimetres of the test solution to pass as satisfactory.

Assuming excess of test solution (above 102.2 cc) as due to admixture of ammonium chloride, the percentage of this substance present may be calculated from the following:—

$$\begin{array}{l}
 \text{If } x = \text{percentage ammonium chloride} \\
 100 - x = \text{ " " " bromide} \\
 \text{Let } a = \text{cc. volumetric solution used per gramme sample} \\
 \frac{x}{.535} + \frac{100-x}{.98} = a
 \end{array}$$

$$\text{Whence, } x = 1.1782a - 120.23$$

Taking $a = 103.6$, it thus appears that the British Pharmacopoeia permits as much as 1.83 per cent of ammonium chloride.

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It will be seen, by consulting the appended table, that while a large number of the samples examined come very near to the B. P. Standard, not one sample quite reaches it, and a considerable number depart from it by notable amounts.

Chloride of ammonium is not a dangerous impurity, except in so far as it materially reduces the medicinal efficiency of the drug. The bromide is recognized as essentially a nerve sedative and depressant ; while the chloride is a nerve stimulant. It is therefore evident that these substances tend to counteract each other. Moreover, the effective dose of chloride is smaller than that of the bromide ; hence, the presence of relatively small percentages of the chloride is highly objectionable.

Since this is the first occasion upon which this drug has been subjected to inspection, it may be well to summarize the results of its examination, as below :—

PERCENTAGE OF PURITY.

District.	97 p.c.	96 p.c.	95 p.c.	94 p.c.	93 p.c.	92 p.c.	91 p.c.	90 p.c.	Total.
									Samples
Nova Scotia.....	5	2	1	.....	.....	1	.....	.....	9
Prince Edward Island.....	3	7	.....	.....	.....	.....	.....	.....	10
New Brunswick.....	2	1	1	1	.....	2	1	1	9
Quebec.....	1	3	1	2	.....	2	1	.....	10
St. Hyacinthe.....	4	3	2	.....	.....	.....	1	.....	10
Montreal.....	3	6	1	.....	.....	.....	.....	.....	10
Ottawa.....	3	7	.....	.....	.....	.....	.....	.....	10
Kingston.....	2	7	.....	.....	.....	1	.....	.....	10
Toronto.....	2	5	1	.....	.....	1	.....	1	10
London.....	2	6	1	.....	.....	1	.....	.....	10
Manitoba .. .	3	3	.....	.....	.....	2	2	.....	10
Calgary	7	2	1	.....	.....	.....	.....	.....	10
British Columbia.....	-	3	1	.....	.....	3	2	1	10
	37	55	10	3	0	13	7	3	128

This tabulation omits the two cases referred to above, where decided mistakes in dispensing occurred ; in one case boracic acid being furnished ; and in the other a bromide of ammonium highly contaminated with ammonio-chloride of mercury.

Expressed as percentages, we have the following :—

BROMIDE OF AMMONIUM.

	Per cent.
Of 97 to 98 per cent purity.....	28·9
96 " 97 " "	43·0
95 " 96 " "	7·8
94 " 95 " "	2·3
93 " 94 " " .....	.....
92 " 93 " "	10·1
91 " 92 " "	5·6
90 " 91 " "	2·3

100·0 per cent

of the collection.

Even if we allow a margin of 1 to 2 per cent. to cover possible errors in sampling, weighing, measuring and titration (a margin which is fully large even when work is not done in duplicate, and which entirely disappears under the conditions fulfilled in this laboratory), we find more than 20 per cent. of these samples below such standard, i. e., below 95 per cent. of purity.

This being a first inspection of the drug, it might be advisable to permit all samples reaching a purity of 95 per cent. to pass unquestioned. This suggestion is offered without prejudice to future inspection.

PURIFIED CREAM OF TARTAR.

Potassii Tartras Acidus: Acid potassium tartrate; Bitartrate of potassium, or purified cream of tartar, is to be carefully distinguished from commercial cream of tartar. For this last substance no legalized standard of purity exists, while for the first-named substance the British Pharmacopœia furnishes a perfectly definite standard "Each gramme of the dry salt should require for neutralization at least 5·2 cubic centimetres of the *volumetric solution of sodium hydroxide*. It should yield no characteristic reaction with the tests for lead, copper or iron, and only the slightest reaction with tests for calcium, magnesium, sodium, chlorides or sulphates. The total amount of impurities should not exceed 2½ per cent. of the dried salt."

Commercial cream of tartar, for which no standard of purity has been, thus far made legal, is very largely used as a component of baking powders, of effervescing drinks, etc. It is found on the market in varying degrees of purity, and has been made the subject of inspection in 1887, 1889, 1896, 1900 and 1905. The following synopsis may be of interest:—

COMMERCIAL CREAM OF TARTAR.

Date of collection.	Number of samples examined.	Found genuine.	Same expressed as percentage.
1887.....	36	22	61
1889.....	86	52	60
1896.....	99	65	66
1900.....	65	57	88
1905.....	180	132	73

It is likewise of interest to note the *degree of purity* reached by the Cream of Tartar of commerce. For the inspection of 1887, 73 per cent of the genuine cream of tartars examined were below 90 per cent purity; for 1889, 60 per cent; for 1896, 30 per cent; for 1900, 63 per cent. As regards the inspection of 1905, 12·8 per cent of the genuine samples reached a purity of 97 per cent, *i.e.* were practically up to the pharmacopœal standard of purity; while 38·3 per cent were above 90 per cent of purity.

It must be remembered that these statements refer to Commercial Cream of Tartar. The inspection now reported has regard to the pharmacopœal *Bitartrate of Potassium*, for which a standard of 97½ per cent purity is required. Our inspectors were instructed to ask for the article by one or other of the names recognized by the British Pharmacopœia. These names are (1) *Potassii Tartras Acidus*; (2) *Bi-tartrate of Potassium*; (3) *Acid potassium tartrate*; (4) *Purified Cream of Tartar*.

These instructions were disregarded by the inspectors for the Districts of London, St. Hyacinthe, Manitoba and Calgary, whose invoices show that *Cream of Tartar* has been asked for. This failure to observe my instructions has the important consequence that thirty seven (37) samples, of the present collection, must be judged as *Cream of Tartar* and not as *Purified Cream of Tartar*.

Of the 37 samples referred to, No. 28837 contains a small amount of bi-carbonate of soda. It is probable that this is unintentionally present (perhaps from the container having formerly contained bi-carbonate) and I have marked it as "doubtful." No. 25621 consists entirely of Bi carbonate of soda, and is evidently an error in dispensing. No. 27878 consists of acid phosphate of lime and starch; and No. 30128, contains burnt alum and starch. These two samples are therefore adulterated, under the Act. The

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remaining 33 samples must be passed as legal cream of tartar although their values, to the consumer, vary greatly. This is shown in the following table:—

	Samples.
95 to 100 per cent purity.....	11
90 to 95 " " "	14
85 to 90 " " "	7
Below 85 " " "	1
	<hr/>
	33
Doubtful.....	1
Adulterated	2
Error in dispensing.....	1
	<hr/>
Total.....	37

The samples just referred to are reported in detail in the accompanying Table No. III.

Table No. II. contains details of the examination of ninety three (93) samples purchased as *Potassii Tartras Acidus*, or Purified Cream of Tartar.

Of these samples Nos. 33415, 26309 and 33314 consist of burnt alum and starch, and are clearly adulterated. In the case of No. 26309 the word "Commercial" is pencilled on the label. Even as a commercial *Cream of Tartar* it would be pronounced adulterated. No. 32554 is a sample of Rochelle salt, and is clearly an error in dispensing.

Of the remaining 89 samples, only 21 samples fulfil the requirements of the British Pharmacopœia. The 68 samples which, although genuine, in the sense of being essentially Bi-tartrate of potassium, are below the standard of purity fixed by the pharmacopœia, differ so widely among themselves, that it seems scarcely just to place them in a single category. The variations referred to are clearly brought out, thus:—

	Samples.
From 97·5 to 95 per cent purity.....	4
" 95 to 92·5 "	6
" 92·5 to 90 "	24
Below 90 per cent	34
	<hr/>
Total.....	68

The results of this examination of *Purified Cream of Tartar*, may therefore be summarized as follows:—

	Samples.
Genuine.....	21
Doubtful (Error in dispensing).....	1
Adulterated (Burnt alum, &c.)	3
" (Commercial Cream of Tartar, below 90 p.c. purity).	34
" (Commercial Cream of Tartar, below B.P. standard, but from 90 to 95 p.c. purity).	30
" (Commercial Cream of Tartar, below B.P. standard, but above 95 p.c. of purity)	4
	<hr/>
Total.....	93

While I have no power to change this classification, or to characterize as other than adulterated, any sample falling below 97·5 per cent purity, I would recommend a lenient treatment of such offenders, whose samples show a reasonably close approximation to the standard fixed by the British Pharmacopœia; particularly, as the failure to meet the high degree of purity required by the Pharmacopœia, involves no serious reduction of value in the drug, so far as the cases in question are concerned.

A. MCGILL.

TABLE I.—RECORD OF SAMPLES OF BROMIDE OF AMMONIA ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.			DISTRICT OF NOVA SCOTIA—		
Aug. 5..	Bromide of Ammonia....	33416	E. S. Blackie, Hollis St., Halifax, N.S.....	3 ozs...	25
" 5..	"	33417	National Drug Co	3 " ...	20
" 6..	"	33418	G. A. Burbidge, Hollis St., Halifax, N.S.....	3 " ...	20
" 6..	"	33419	Jno. R. Rawley, Granville St., Halifax, N.S....	3 " ...	20
" 6..	"	33420	Brown Bros. & Co., Granville St., Halifax, N.S.	3 " ...	20
" 6..	"	33421	C. E. Huggins, Jacob St., Halifax, N.S.....	3 " ...	15
" 7..	"	33422	H. W. Cameron, Brunswick St., Halifax, N.S..	3 " ...	15
" 7..	"	33423	Jas. McFatridge, Gottingen St., Halifax, N.S..	3 " ...	30
" 7..	"	33424	Coombes & Co., Gottingen St., Halifax, N.S. ..	3 " ...	25
" 13..	"	33425	R. F. Guest, Yarmouth, N.S.....	3 " ...	20
			DISTRICT OF PRINCE EDWARD		
July 25..	Bromide of Ammonia....	31140	Reddin Bros., Charlottetown, P.E.I.	3 " ...	30
" 25..	"	31141	J. G. Jameson, Charlottetown, P.E.I.	3 " ...	30
" 25..	"	31142	G. S. Hughes, Charlottetown, P.E.I.....	3 " ...	20
" 26..	"	31143	A. Reddin, Charlottetown, P.E.I.....	3 " ...	25
" 26..	"	31144	McDonald & McKinnon, Charlottetown, P.E.I.	3 " ...	30
" 31..	"	31145	J. W. Caruthers, Montague Bridge, P.E.I... ..	3 " ..	20
Aug. 6..	"	31146	P. McNutt & Son, Malpeque, P.E.I.....	3 " ...	15
" 6..	"	31147	Jardine & Bernard, Kensington, P.E.I.....	3 " ...	30
" 7..	"	31148	W. Kennedy, Summerside, P.E.I.....	3 " ...	30
" 7..	"	31149	A. W. P. Gourlie, Summerside, P.E.I	3 " ...	30
			DISTRICT OF NEW BRUNSWICK—		
July 26..	Bromide of Ammonia....	29564	Nat. Drug & Chem. Co. Ltd., Mill st., St. John, N.B.	3 ozs...	25
" 27..	"	29565	Geo. A. Moore, 105 Brussels st., St. John, N.B.	3 " ...	45
" 29..	"	29566	Can. Drug Co. Ltd., Prince William St., St. John, N. B.	3 " ...	45
" 30..	"	29567	P. J. Donohoe, Cor. St. James and Charlotte St., St. John, N.B.	3 " ...	45
Aug. 6..	"	29568	B. J. Sharp, Broad St., Sussex, Kings Co., N.B.	3 " ...	45
" 7..	"	29569	Dr. E. O. Steeves Pharmacy, Main St. Moncton N.B.	3 " ..	45
" 9..	"	29570	C. P. Hickey, Main St., Chatham, N.B.....	3 " ...	35
" 20..	"	29571	Estate of Fred Waterson, King St., St. Stephen, N.B.	3 " ...	45
" 21..	"	29572	Alonzo Staples, Cor. of York and King St., Fredricton, N.B.	3 " ...	30
" 23..	"	29573	Sheasgreen Drug Co., Main St., Woodstock, N.B.	3 " ...	25

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BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
		B. P. Silver test N per gram. 10	Excess over 102 cc. N calculated to 10 chloride.	Percentage of Pur- ity.	

R. J. WAUGH, INSPECTOR.

National Drug Co., Halifax, N.S.	Sold as labeled.	105	3.52	96.48	This sample contains about 18 p.c. of ammonio-chlo- ride of mercury.
Not known	"	104	2.35	97.65	
National Drug Co., Halifax, N.S.	"	104	2.35	97.65	
"	"	105	3.52	96.48	
"	"	104	2.35	97.65	
"	"	106	4.70	95.30	
Fielding Chemical Co., Guelph, O.	"	108	7.04	92.96	
National Drug Co., Halifax, N.S.	"	104	2.35	97.65	
"	"	84	.....	.....
National Drug Co., St. John, N.B. Branch.	"	104	2.35	97.65	

ISLAND—T. MOORE, INSPECTOR.

Lyman Sons, Montreal	105	3.52	96.48	
Not known	.....	104	2.35	97.65
"	.....	104	2.35	97.65
National Drug Co., Montreal	.....	104	2.35	97.65
Lyman & Sons, Montreal	.....	105	3.52	96.48
Simpson Bros., Halifax	.....	105	3.52	96.48
National Drug Co., Montreal	.....	105	3.52	96.48
Lyman Sons & Co., Montreal	.....	105	3.52	96.48
Not known	.....	105	3.52	96.48
National Drug Co., Montreal	.....	105	3.52	96.48

J. C. FERGUSON, INSPECTOR.

Imported by Vendors	Sold from bulk.	108	7.04	92.96	This is a sample of Boracic Acid.
Nat. Drug & Chem. Co., St. John, N.B.	"	104	2.35	97.65	
Malinkrot Chem. Co., New York, U.S.A.	"	106	4.70	95.30	
Nat. Drug Co., Ltd., St. John, N.B.	"	108	7.04	92.96	
Nat. Drug Co., Ltd., St. John, N.B.	.....	107	5.87	94.13
Not known	Samples filled from stock bottle on shelf.	.....	.....	.....
Rosengarten & Son, Philadelphia	Taken from orig- inal package.	109	8.21	91.79	
Powers & Weightman, Philadel- phia, P. A.	Sample filled from original package.	104	2.35	97.65	
Can. Drug Co., St. John, N.B.	Sample filled from large package.	105	3.52	96.48	
Can. Drug Co., St. John, N.B.	110	9.4	90.60	

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TABLE I.—RECORD OF SAMPLES OF BROMIDE OF AMMONIA ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.					
DISTRICT OF QUEBEC—					
July 29..	Bromide of Ammonia...	26304	Joseph Masson, 808 St. Valier.	3 ozs...	36
" 29..	"	26305	Thon. I. Laroche, 735 St. Valier.....	3 "	25
" 29..	"	26306	L. E. Martel, 91 St. Joseph.....	3 "	36
" 29..	"	26307	David Gagnon, 30 St. Pierre.....	3 "	36
" 29..	"	26308	Victor Giroux, 104 Coté Lamontagne	3 "	30
" 29..	"	26329	W. Brunnette et Cie, 139 St. Joseph.....	3 "	30
" 29..	"	26310	C. P. Delisle, 379½ St. Jean.....	3 "	30
" 29..	"	26311	Alfred Jolicoeur, 338 St. Jean.....	3 "	40
" 29..	"	26312	F. E. Gauvreau, 336 St. Jean.....	3 "	30
" 29..	"	26313	T. Edmond Dube.....	3 "	21
DISTRICT OF ST. HYACINTHE—					
Aug. 6..	Bromide of Ammonia....	27851	J. C. Stockwell, Danville, Que.....	9 ozs...	1 00
" 9..	"	27852	A. Baldwin, Coaticook, Que.....	9 "	75
" 9..	"	27853	W. H. Griffith, Sherbrooke, Que	9 "	65
" 9..	"	27854	F. T. Ansell, Que	9 "	45
" 14..	"	27855	Wright & Co., St. Jean, Que.....	9 "	75
" 14..	"	27856	P. P. Sabourin, Que.....	9 "	55
" 16..	"	27857	Dr. C. P. Verdon, Granby, Que.....	9 "	75
" 26..	"	27858	Dr. St. Jacques & Cie, St. Hyacinthe, Que.....	9 "	50
" 26..	"	27859	Dr. John West, Magog, Que.....	9 "	1 00
" 26..	"	27860	Pharmacie Ostigny, St. Hyacinthe, Que.	9 "	60
DISTRICT OF MONTREAL—					
July 30..	Bromide of Ammonia....	32543	J. E. W. Lecours, 238 Craig St., Montreal	3 ozs...	30
" 30..	"	32544	Henry Lanctot, 295 St. Catherine St. E., M'tnl.	3 "	25
Aug. 8..	"	32545	Dr. J. Leduc & Co., Notre Dame St., Montreal.	3 "	20
" 8..	"	32546	Pharmacie Robert, 1 St. Lawrence St., Montreal	3 "	25
" 9..	"	32547	James Fortune, Huntingdon.....	3 "	30
" 12..	"	32548	J. A. Harte, Montreal	3 "	30
" 14..	"	32549	A. L. Boucher, Joliette	3 "	45
" 14..	"	32550	J. J. Lyons Co., Montreal.....	3 "	30
" 14..	"	32551	J. Pigeon	3 "	30
" 12..	"	32562	O. F. Pinck, Montreal	3 "	25
DISTRICT OF OTTAWA—					
July 30..	Bromide of Ammonia....	34001	Medical Hall, Hull	3 ozs...	25
" 30..	"	34002	Modern Drug Store, Hull	3 "	25
" 29..	"	34003	E. R. DesRosiers, Ottawa ..	3 "	30
" 29..	"	34004	The Jos. Valiquette Co., Ottawa.....	3 "	15
" 30..	"	34005	Beattie & Argue, Ottawa.....	3 "	25
" 30..	"	34006	Allen & Cochrane, Ottawa.	3 "	30
" 30..	"	34007	Geo. Watson, Ottawa	3 "	30
Aug. 5..	"	34008	Geo. E. Moore, Carleton Place.....	3 "	25
" 6..	"	34009	Wm. Johnston, Smith's Falls	3 "	30
" 7..	"	34010	F. L. Hall, Perth.....	3 "	20

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BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
		B. P. Silver test N per gram. 10	Excess over 102 cc. N calculated to 10 chloride.	Percentage of Pur- ity.	

E. BELAND, INSPECTOR.

T. E. Martel, 91 St. Joseph.....	.....	107	5·87	94·13	
Kerry Watson, Montreal.....	.....	107	5·87	94·13	
The Lyman Knox Co., Montreal.....	.....	105	3·52	96·48	
" " ".....	.....	106	4·70	95·30	
" " ".....	.....	108	7·04	92·96	
Not known.....	.....	104	2·35	97·65	
".....	.....	109	8·21	91·79	
".....	.....	105	3·52	96·48	
Lyman Sons & Co., Montreal.....	.....	108	7·04	92·96	
Fielding Chem. Co.....	.....	105	3·52	96·48	

J. C. ROULEAU, INSPECTOR.

Not known.. .. .	.....	106	4·70	95·30	
".....	.....	105	3·52	96·48	
Lyman Sons & Co., Montreal....	.....	104	2·35	97·65	
Kerry Watson & Co., Montreal....	.....	105	3·52	96·48	
Lyman Sons & Co., Montreal....	.....	105	3·52	96·48	
N. C. Polson & Co., Kingston....	.....	104	2·35	97·65	
Not known.....	.....	104	2·35	97·65	
".....	.....	109	8·21	91·79	
Lyman Sons & Co., Montreal....	.....	104	2·35	97·65	
Not known.....	.....	106	4·70	95·30	

J. J. COSTIGAN, INSPECTOR.

Not known... .. .	.....	105	3·52	96·48	
".....	.....	104	2·35	97·65	
.....	.....	105	3·52	96·48	
.....	.....	105	3·52	96·48	
.....	.....	105	3·52	96·48	
.....	.....	105	3·52	96·48	
.....	.....	105	3·52	96·48	
.....	.....	104	2·35	97·65	
.....	.....	106	4·70	95·30	
National Drug and Chemical Co..	.....	104	2·35	97·65	

J. A. RICKEY, INSPECTOR.

National Drug and Chemical Co..	Taken from bot- tle on shelf.	104	2·35	97·65	
Lyman, Krox & Co.....	" ..	105	3·52	96·48	
Ottawa Drug Co.....	" ..	105	3·52	96·48	
Lyman Sons & Co.....	" ..	104	2·35	97·65	
National Drug and Chemical Co..	" ..	105	3·52	96·48	
Lyman Sons & Co.....	" ..	105	3·52	96·48	
".....	" ..	105	3·52	96·48	
National Drug and Chemical Co..	" ..	105	3·52	96·48	
".....	" ..	104	2·35	97·65	
".....	" ..	105	3·52	96·48	

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TABLE I.—RECORD OF SAMPLES OF BROMIDE OF AMMONIA ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.					
DISTRICT OF KINGSTON—					
July 23..	Bromide of Ammonia....	32447	W. W. Gibson, Kingston	3 ozs...	30
" 23..	"	32448	H. Wade, Kingston	3 "	30
" 23..	"	32449	L. P. Best, Kingston.....	3 "	45
" 23..	"	32450	H. Skinner & Co., Kingston	3 "	30
" 23..	"	32451	G. Mahood, Kingston..	3 "	30
" 23..	"	32452	W. H. Medley, Kingston.....	3 "	30
" 23..	"	32453	F. J. Hoag, Kingston	3 "	30
" 23..	"	32454	A. J. Chown, Kingston	3 "	30
" 24..	"	32455	J. B. McLead, Kingston	3 "	30
" 26..	"	32456	F. C. Clarke, Belleville Front	3 "	25
DISTRICT OF TORONTO					
Aug. 9..	Bromide of Ammonia....	33341	Chas J. Stoddart, 95 Dundas St., West Toronto Junction.	3 ozs...	25
" 12..	"	33342	Parke & Parke, 18 Market Square, Hamilton...	3 "	25
" 15..	"	33343	S. B. Scobell, 13 St. James St., St. Catharines..	3 "	15
" 15..	"	33344	Henry Southcott, 99 St. Paul St., St. Catharines	3 "	25
" 15..	"	33345	Walker & Abbs, 30 Queen St., St. Catharines..	3 "	25
" 15..	"	33346	A. J. Greenwood, 149 St. Paul St., St. Catharines	3 "	15
" 15..	"	33347	F. W. Jeffs, 68 King St., St. Catharines.....	3 "	20
" 19..	"	33348	J. L. Macartney, 34 Erie Ave., Niagara Falls..	3 "	15
" 19..	"	33349	Niagara Falls Drug Co., 37 Queen St., Niagara Falls.	3 "	25
" 19..	"	33350	A. C. Thorburne, Niagara Falls South... ..	3 "	25
DISTRICT OF LONDON—					
July 29..	Bromide of Ammonia...	30390	Frank H. Smith, St. Mary's.....	6 ozs...	60
Aug. 3..	"	30411	E. D. Vignon, Windsor.... ..	3 "	30
" 13..	"	30416	Geo. H. Small, St. Thomas.	6 "	60
" 13..	"	30419	Callard & McLacklan, London.. ..	6 "	60
" 14..	"	30424	W. A. Karn, Woodstock.....	3 "	30
" 15..	"	30427	Fred C. Bond, Galt.....	3 "	30
" 15..	"	30429	C. J. Dickinson, Galt	3 "	30
" 15..	"	30431	John Schmith, Berlin	3 "	30
" 16..	"	30435	Walter Beattie Co., Guelph.....	3 "	30
" 16..	"	30437	Alexander Steevans, Guelph.....	3 "	45

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF SAMPLES OF BROMIDE OF AMMONIA ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.					
DISTRICT OF MANITOBA—					
Aug. 6..	Bromide of Ammonia...	25613	Cranstons Drug Store, Winnipeg	3 ozs..	25
" 6..	"	25616	H. W. Bradshaw, Winnipeg....	3 " ..	20
" 6..	"	25619	Colcleugh's Drug Store, Winnipeg	3 " ..	45
" 7..	"	25622	W. F. C. Brathwaite, Winnipeg.....	3 " ..	25
" 7..	"	25625	Gordon Mitchell Co., Winnipeg.....	3 " ..	35
" 7..	"	25635	H. Wise Co., Winnipeg.....	3 " ..	15
" 7..	"	25638	The T. Eaton Co., Winnipeg.....	3 " ..	45
" 6..	"	25641	Winnipeg Drug Hall, Winnipeg.	3 " ..	40
" 10..	"	25650	R. D. Bruce.....	3 " ..	25
" 10..	"	25653	Thornton Andrews, Winnipeg	3 " ..	30
DISTRICT OF CALGARY—					
Aug. 21..	Bromide of Ammonia...	28788	Findlay Drug Co., Calgary	3 ozs..	30
" 21..	"	28789	Owen Bott, Calgary.	3 " ..	30
" 23..	"	28790	McCutcheon Bros., Calgary.....	3 " ..	30
" 17..	"	28781	C. S. Pringle, Medicine Hat.....	3 " ..	30
" 17..	"	28782	B. F. Souch, Medicine Hat.....	3 " ..	45
" 17..	"	28783	E. M. Cawker, Medicine Hat.....	3 " ..	50
" 21..	"	28784	C. A. Wallace, Calgary.....	3 " ..	30
" 21..	"	28785	M. Maclean, Calgary.....	3 " ..	30
" 21..	"	28786	Oliver Bros., Calgary.....	3 " ..	30
" 21..	"	28787	Curry & Cope, Calgary.....	3 " ..	30
DISTRICT OF BRITISH COLUMBIA—					
Aug. 1 .	Bromide of Ammonia...	32132	T. A. Muir & Co., New Westminster, B.C....	3 ozs..	35
" 1..	"	32133	D. S. Curtis & Co., New Westminster, B. C....	3 " ..	50
" 9..	"	32134	The Nelson Drug Stores Ltd., Vancouver, B.C.	3 " ..	45
" 9..	"	32135	John Reed, Granville St., Vancouver, B.C.....	3 " ..	50
" 9..	"	32136	The McDowell, Atkins, Watson Co. Ltd., Van- couver.	3 " ..	45
" 9..	"	32137	W.M. Harrison & Co., Granville St., Vancouver.	3 " ..	35
" 9..	"	32138	The Woodward Dept. Stores, Hasting St., Van- couver.	3 " ..	25
" 9..	"	32139	The Red Cross Pharmacy, Cordova St. Van- couver.	3 " ..	40
" 16..	"	32140	F. J. Mackenzie, Ladner, B.C.....	3 " ..	25
" 19..	"	32141	E. S. Knowlton Drug Stores, Carrall St. Van- couver.	3 " ..	45

SESSIONAL PAPER No. 14

BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
		B. P. Silver test N per gram. 10	Excess over 102 cc. N calculated to 10 chloride.	Percentage of Pur- ity.	

A. C. LARIVIÈRE, INSPECTOR.

		p. c.		
Martin Bole, Wynne Co., Winni- peg.	.....	105	3.52	96.48
The Bole Drug Co., Winnipeg...	.....	109	8.21	91.79
Not known.....	.....	108	7.04	92.96
The Bole Drug Co., Winnipeg...	.....	104	2.35	97.65
Not known.....	.....	109	8.21	91.79
" .....	.....	108	7.04	92.96
" .....	.....	105	3.52	96.48
Martin Bole, Wynne Co., Winni- peg.	.....	104	2.35	97.65
Martin Bole, Wynne Co., Winni- peg.	.....	105	3.52	96.48
Not known.....	.....	104	2.35	97.65

R. W. FLETCHER, INSPECTOR.

Lyman Son & Co.....	.....	105	3.52	96.48
Martin Bole and Winn, Winnipeg	.....	105	3.52	96.48
Bole Drug Co., Calgary.....	.....	104	2.35	97.65
Lyman Sons & Co., Montreal....	.....	106	4.70	95.30
Bole Drug Co., Winnipeg.....	.....	104	2.35	97.65
E. Merck. Darmstadt, Ger.....	.....	104	2.35	97.65
Bole Drug Co., Winnipeg.....	.....	104	2.35	97.65
Nat. Drug Co., Montreal.....	.....	104	2.35	97.65
" .....	.....	104	2.35	97.65
" .....	.....	104	2.35	97.65

E. B. PARKINSON, INSPECTOR.

Mallinckroodt Chem. Co., St. Louis.	.....	108	7.04	92.96
Lyman & Sons, Montréal.....	.....	105	3.52	96.48
Evans & Sons, Montreal& Toronto	.....	105	3.52	96.48
Burgoyne Burbridges & Co., Col- man St. London.	.....	109	8.21	91.79
Henderson Bros, Ltd., Van- couver, B.C.	.....	108	7.04	92.96
Mallinckroodt Chem. Co., St. Louis.	.....	109	8.21	91.79
The Dom. Drug Co., Hamilton..	.....	105	3.52	96.48
Henderson Bros., Ltd., Van- couver, B.C.	.....	108	7.04	92.96
Henderson Bros., Ltd., Van- couver, B.C.	.....	106	4.70	95.30
Mallinckroodt Chem. Co., St. Louis.	.....	110	9.40	90.60

8-9 EDWARD VII., A. 1909

TABLE II.—RECORD OF SAMPLES OF PURIFIED CREAM OF TARTAR ANA-

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.					
DISTRICT OF NOVA SCOTIA—					
Aug. 5..	Purified Cream of Tartar	33406	E. S. Blackie, Hollis St., Halifax	6 ozs...	15
" 5..	"	33407	National Drug Co., Halifax	6 " ..	15
" 6..	"	33408	G. A. Burbridge, Hollis St., Halifax... ..	6 " ..	15
" 6..	"	33409	C. A. Barnstead, Granville St., Halifax.....	6 " ..	15
" 6..	"	33410	Jno. R. Rawley, Halifax.....	6 " ..	15
" 6..	"	33411	Brown Bros. & Co., Halifax.....	6 " ..	10
" 6..	"	33412	C. E. Huggins, Jacob St., Halifax.....	6 " ..	15
" 13..	"	33413	L. C. Gardner & Co., Yarmouth, N. S	6 " ..	20
" 15..	"	33414	J. D. Clark, Kentville, N. S.....	6 " ..	15
" 16..	"	33415	R. S. Dakin, Windsor, N. S.....	6 " ..	18
DISTRICT OF PRINCE EDWARD					
July 25..	Purified Cream of Tartar	31160	Redding Bros., Charlottetown	6 ozs...	18
" 25..	"	31161	J. G. Jameson, Charlottetown.....	6 " ..	15
" 25..	"	31162	G. E. Hughes, Charlottetown.....	6 " ..	15
" 26..	"	31163	A. Reddin, Charlottetown.....	6 " ..	18
" 26..	"	31164	McDonald, McKinnon, Charlottetown.	6 " ..	20
" 30..	"	31165	J. C. Ferguson, Souris.....	6 " ..	25
" 31..	"	31166	J. W. Carruthers, Montague Bridge.....	6 " ..	15
Aug. 6..	"	31167	P. McNutt & Son, Malpeque	6 " ..	12
" 7..	"	31168	W. Kennedy, Summerside	6 " ..	15
" 7..	"	31169	D. John McNeil, Summerside.....	6 " ..	15
DISTRICT OF NEW BRUNSWICK—					
Aug. 26..	Purified Cream of Tartar	29584	Nat. Drug & Chem. Co., Ltd., Mill St. St. John, N.B.	6 ozs...	20
" 27..	"	29585	E. Clinton Brown, St. John, N.B.....	6 " ..	20
" 29..	"	29586	Can. Drug Co., St. John, N.B.....	6 " ..	20
" 31..	"	29587	Wm. Hawker, St. John, N.B.....	6 " ..	20
" 6..	"	29588	The Sussex Mercantile Co. Ltd., Sussex, King's Co., N.B.	6 " ..	15
" 7..	"	29589	James McDonald Cook, Medical Hall, Moncton, N.B.	6 " ..	25
" 9..	"	29590	J. D. B. F. McKenzie, Chatham, N.B.....	6 " ..	15
" 20..	"	29591	Frank Smith, St. Stephen, N.B.....	6 " ..	15
" 21..	"	29592	J. M. Wiley, Fredricton, N. B... ..	6 " ..	30
23..	"	29593	Garden Bros., Woodstock, N.B.....	6 " ..	12

SESSIONAL PAPER No. 14

LYZED BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.		Opinion of the Chief Analyst
		Acidity (cc.—nor- mal) per 100 grms.	Calculated to Bi- tartrate of Potas- sium.	

R. J. WAUGH, INSPECTOR.

National Drug Co., Halifax	Asked for and sold as la- beled.	488	91.7	Below standard.
Unknown	" "	478	90.0	"
National Drug Co., Halifax	" "	480	90.2	"
J. P. Mott & Co., Halifax.	" "	482	90.6	"
National Drug Co., Halifax.....	" "	488	91.7	"
" "	" "	477	89.1	"
" "	" "	478	90.0	"
Dearborn & Co., St. John, N.B..	" "	492	92.5	"
National Drug Co., Halifax.....	" "	524	98.5	Genuine.
" " .....	" "	.....	.. ..	Adulterated. Is burnt alum and starch.

ISLAND—T. MOORE, INSPECTOR.

Not known.....	.....	528	99.2	Genuine.
Lyman Sons & Co., Montreal....	.....	530	99.6	"
Not known .....	.....	488	91.7	Below standard.
National Drug Co., Montreal....	.....	530	99.6	Genuine.
Taylor & Son, Scotland.....	.....	486	92.0	Below standard.
Howards .....	.....	468	88.0	"
Not known.....	.....	496	93.25	"
E. W. Gillett & Co., Toronto ....	.....	530	99.6	Genuine.
Not known.....	.....	480	90.2	Below standard.
National Drug Co., Montreal....	.....	488	91.7	"

J. C. FERGUSON, INSPECTOR.

Vendor.	Crystals Imported and ground by vendors.	518	97.4	Genuine.
E. W. Gillett & Co., Ltd., To- ronto, Ont.	Sample filled from bulk by vendor.	530	99.6	"
Vendors, N.B.....	Imported in Crystals by vendors and ground.	484	91.0	Below Standard.
Nat. Drug Co. Ltd., St. John, N.B.	Sample taken from large bottle.	512	96.3	"
Lyman, Sons & Co., Montreal, P.Q.	Sold as pure Cream of Tartar.	530	99.6	Genuine.
E. W. Gillett & Co., Ltd., To- ronto, Ont.		508	95.5	Below Standard.
"		528	99.2	Genuine.
Nat. Drug Co., St. John, N.B....		506	95.1	Below Standard.
Colonial Spice Milling Co., Guel- ph, Ont.	Pkge. marked. Cream of Tartar, recommended for purity strength and uni- formity.	470	88.4	"
Nat. Drug Co., St. John, N.B....	Sample taken from large drawer in bulk.	468	88.0	"

8-9 EDWARD VII., A. 1909

TABLE II.—RECORD OF SAMPLES OF PURIFIED CREAM OF TARTAR ANA-

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.					
DISTRICT OF QUEBEC—					
July 30..	Purified Cream of Tartar	26324	Jos. Masson, 808 St. Valier.....	6 ozs...	42
" 30..	"	26325	Thon. T. Laroche, 735 St. Valier.....	6 " ..	25
" 30..	"	26326	T. E. Martel, 91 St. Joseph.....	6 " ..	24
" 30..	"	26327	David Gagnon, 30 St. Pierre.....	6 " ..	25
" 30..	"	26328	Victor Giroux, Coté Lamontagne	6 " ..	20
" 30..	"	26309	W. Brunnette et Cie.....	6 " ..	30
" 30..	"	26330	C. P. Delisle, 379½ St. Jean	6 " ..	30
" 30..	"	26331	Alfred Jolicoeur, 338 St. Jean.....	6 " ..	40
" 30..	"	26332	F. E. Gauvereau, 336 St. Jean.....	6 " ..	30
" 30..	"	26333	T. Edmond Dubé, 28 St. Jean.....	6 " ..	30
DISTRICT OF ST. HYACINTHE—					
Aug. 6..	Purified Cream of Tartar	27873	Dr. P. A. Brassard, Stanfield	12 ozs..	25
" 9..	"	27874	Dr. Stevenson, Coaticook.....	12 " ..	25
" 9..	"	27875	T. A. Bourque & Cie, Sherbrooke.....	5 Pkts, ¼ lb. each.	30
DISTRICT OF MONTREAL—					
Aug. 14..	Purified Cream of Tartar	32552	J. T. Lyons Co., Montreal.....	6 ozs...	25
July 30..	"	32553	Joseph Cantant, 251 Notre Dame St., East, Montreal.	6 " ..	20
		32554	Henry Lanctot, 295 St. Catherine St., Montreal..	6 " ..	15
Aug. 1..	"	32555	O. St. Amour, St. Agathe.....	6 " ..	30
" 5..	"	32556	Dr. J. E. St. Onge, Valleyfield.....	6 " ..	25
" 5..	"	32557	Mrs. St. Louis, Valleyfield	6 " ..	30
" 5..	"	32558	Dr. Gauthier, Valleyfield.....	6 " ..	15
" 5..	"	32559	Dr. Lafontaine, Berthierville.....	6 " ..	20
" 8..	"	32560	Dr. J. Leduc & Co., Montreal & Co..	6 " ..	20
" 8..	"	32561	J. Hirtz, 54 Craig St., Montreal.....	6 " ..	20
DISTRICT OF OTTAWA—					
July 30..	Purified Cream of Tartar	34021	Medical Hall, Hull	6 ozs...	20
" 30..	"	34022	Modern Drug Store, Hull.....	6 " ..	20
" 29..	"	34023	D. R. DesRosiers, Ottawa	6 " ..	25
" 29..	"	34024	The Jos. Valiquette Co., Ottawa	6 " ..	15
" 30..	"	34025	Beattie & Argue, Ottawa.....	6 " ..	20
" 30..	"	34026	Allen & Cochrane, Ottawa	6 " ..	20
" 30..	"	34027	Geo. Watson, Ottawa	6 " ..	25
Aug. 6..	"	34028	G. E. Moore, Carleton Place.....	6 " ..	15
" 7..	"	34029	Wm. Johnson, Smith's Falls.....	6 " ..	15
" 7..	"	34030	F. L. Hall, Perth.....	6 " ..	15

SESSIONAL PAPER No. 14
LYZED BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.		Opinion of the Chief Analyst.
		Acidity — per 100 grammes.	Bi- Calculated to Po- tartrate of tassium.	

E. BELAND, INSPECTOR.

Nat. Drug & Chem. Co.....		470	88.4	Below Standard.
"		474	89.1	"
"		486	92.0	"
Evans & Sons, Montreal...		470	88.4	"
Lyman Knox Co., Montreal.....		478	90.0	"
Not known.				Is burnt alum and starch. The word "Commercial" is written in pencil on the bottle. Adulterated.
Dr. Ed. Morin et Cie.....		464	87.2	Below Standard.
Not known.....		476	89.5	"
Lyman Sons Co., Montreal.....		456	85.7	"
Not known.....		494	92.9	"

J. C. ROULEAU, INSPECTOR.

J. E. Liverriais, Quebec.....		470	88.4	Below Standard.
Lyman, Sons & Co., Montreal.....		478	90.0	"
S. H. Ewing & Son, Montreal...	Pkges marked, pure ground 1/4 lb., Cream of Tartar.	480	90.2	"

J. J. COSTIGAN, INSPECTOR.

Nat. Drug & Chem. Co		484	91.0	Below Standard.
Not known.....		490	92.1	"
"				A mistake in filling the order. Is a sample of Rochelle Salts.
Lyman Sons		456	85.7	Below Standard.
"		494	92.9	"
Not known.....		482	90.6	"
"		476	89.5	"
"		474	89.1	"
"		484	91.0	"
Lyman Sons		472	88.7	"

J. A. RICKEY, INSPECTOR.

National Drug and Chemical Co. 99 per cent pure....		476	89.5	Below standard.
Lyman, Knox Co.....		476	89.5	"
Ottawa Drug Co., Ottawa.		476	89.5	"
Lyman Sons & Co., Montreal... Would not guarantee pure.		474	89.1	"
National Drug Co., Ottawa... 99 per cent pure.....		476	89.5	"
Lyman Sons Co., Montreal.....		470	88.4	"
"		484	91.0	"
National Drug and Chemical Co.. 99 per cent pure.....		521	98.5	Genuine.
"		476	89.5	Below Standard.
Lyman Sons & Co. ... Gillett's Brand		526	98.9	Genuine.

TABLE II.—RECORD OF SAMPLES OF PURIFIED CREAM OF TARTAR ANA-

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.				DISTRICT OF KINGSTON—	
July 23..	Purified Cream of Tartar	32465	A. J. Chown, Kingston	3 ozs...	15
" 23..	" "	32467	W. W. Gibson, Kingston	3 " ...	15
" 23..	" "	32468	H. Wade, Kingston	3 " ...	15
" 23..	" "	32469	L. P. Best, Kingston	3 " ...	20
" 23..	" "	32470	H. Skinner & Co., Kingston	3 " ...	15
" 23..	" "	32471	G. Mahood, Kingston	3 " ...	20
" 23..	" "	32472	W. H. Medley, Kingston	3 " ...	20
" 23..	" "	32473	F. J. Hoag, Kingston	3 " ...	20
" 24..	" "	32474	J. B. McLead, Kingston	3 " ...	20
" 26..	" "	32475	R. Templeton, Belleville Front	3 " ...	15
				DISTRICT OF TORONTO—	
Aug. 9..	Purified Cream of Tartar	33311	A. E. Walton, Ltd., 714 Queen St. E., Hamilton	6 ozs...	15
" 12..	" "	33312	Parke & Parke, 18 Market Square, Hamilton...	6 " ...	15
" 12..	" "	33313	F. W. Mills, 332 King St. E., Hamilton	6 " ...	15
" 12..	" "	33314	Hawkins, Ltd., 315 Barton St. E., Hamilton...	6 " ...	12
" 15..	" "	33315	S. B. Skobell, 13 James St., St. Catherines	6 " ...	20
" 15..	" "	33316	Walker & Abbs, 30 Queen St., St. Catherines...	6 " ...	15
" 15..	" "	33317	F. W. Jeffs, 68 King St., St. Catherines	6 " ...	10
" 19..	" "	33318	H. W. Smith, Erie Ave., Niagara Falls	6 " ...	15
" 19..	" "	33319	W. W. Ker, Niagara Falls South	6 " ...	20
" 21..	" "	33320	Crown Drug Store, 278 Yonge St., Toronto	6 " ..	15
				DISTRICT OF BRITISH COLUMBIA—	
Aug. 1..	Purified Cream of Tartar	32152	T. A. Muir & Co., New Westminster, B.C.	6 ozs...	30
" 1..	" "	32153	D. S. Curtis, New Westminster, B.C.	6 " ...	40
" 9..	" "	32154	LePatoural & McRae, Vancouver, B.C.	6 " ...	55
" 9..	" "	32155	Jno. Reed, Granville St., Vancouver, B.C.	6 " ...	45
" 9..	" "	32156	McDowell-Atkins-Watson Co., Ltd., Vancouver	6 " ...	30
" 9..	" "	32157	W. M. Harrison & Co., Vancouver, B.C.	6 " ...	30
" 9..	" "	32158	Woodward Dept. Stores, Vancouver, B.C.	6 " ...	25
" 9..	" "	32159	The Red Cross Pharmacy, Vancouver, B.C.	6 " ...	50
" 16..	" "	32160	F. J. MacKenzie, Ladner, B.C.	6 " ...	25
" 19..	" "	32161	E. S. Knowlton Drug Store, Vancouver, B.C. ...	6 " ...	35

SESSIONAL PAPER No. 14
LYZED BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.		Opinion of the Chief Analyst.
		Acidity per 100 grammes.	Calculated to Bi- tartrate of Potas- sium.	

J. HOGAN, INSPECTOR.

Lyman Sons & Co., Montreal.....		504	94·7	Below standard.
Not known.....		466	87·6	"
Lyman Sons & Co., Montreal.....		526	98·9	Genuine.
Howard & Sons.....		470	88·4	Below standard.
H. Skinner & Co., Kingston.....		478	90·0	"
Lyman Sons, Montreal.....		470	88·4	"
H. Skinner & Co., Kingston.....		468	88·0	"
" ".....		472	88·7	"
" ".....		474	89·1	"
Evans & Sons, Montreal... ..		472	88·7	"

H. J. DAGER, INSPECTOR.

Elliott & Co., Toronto.....		464	87·2	Below standard.
Todhunter & Mitchell.....		526	98·9	Genuine.
J. Winer & Co., Hamilton.....		486	92·0	Below Standard.
Dalton Bros.....				Is burnt alum and starch. Adulterated.
E. W. Gillett, Toronto.. ..		510	95·9	Below standard.
Dominion Drug Co., Hamilton...		470	88·4	"
" ".....		474	89·1	"
Lyman Bros., Toronto.....		494	92·9	"
Dominion Drug Co., Hamilton...		472	88·7	"
Lyman Bros., Toronto.....		468	88·0	"

E. B. PARKINSON, INSPECTOR.

Henderson Bros., Ltd., Vancouver		526	98·9	Genuine.
Lynman & Sons, Montreal.....		524	98·5	"
Dominion Drug Co., Hamilton ..		486	92·0	Below standard.
Henderson Bros., Ltd., Vancouver		526	98·9	Genuine.
" ".....		528	99·2	"
Wm. Braid & Co., Vancouver, B.C.	Would not guarantee pure cream tartar but would mark it commercially pure.	522	98·1	"
E. W. Gillett, Toronto, Ont. . . .		530	99·6	"
Henderson Bros., Ltd., Vancouver		528	99·2	"
" ".....	Same as Sample No. 32157	530	99·6	"
National Drug Co., Montreal....	Marked chemically pure..	514	96·6	Below standard.

TABLE III —RECORD OF SAMPLES OF CREAM OF TARTAR ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.					
DISTRICT OF ST. HYACINTHE—					
Aug. 1..	Cream of Tartar	27872	D. Houde, Nicolet.....	1 lb.....	40
" 14..	"	27876	Wright & Co., St. Jean.....	12 ozs..	35
" 15..	"	27871	J. B. McLean, Farnham.	3 boxes.	60
" 21..	"	27877	Dr. Daignault, Actonvale.....	12 ozs..	30
" 22..	"	27878	T. England & Sons, Knowlton.....	2tins ¹ / ₂ lb. each.	25
" 26..	"	27879	J. B. St. Pierre, St. Hyacinthe.....	12 ozs...	30
" 27..	"	27870	R. E. Bertrand, Magog	12 " ..	30
DISTRICT OF LONDON—					
July 29..	Cream of Tartar	30388	R. F. Gill, St. Marys.....	¹ / ₂ lb.....	20
" 2..	"	30405	W. J. Cherney, Windsor.....	1 "	20
Aug. 13..	"	30415	Reeks & Co., St. Thomas.....	1 "	20
" 13..	"	30418	Cairncross & Lawrence, London, Ont.....	1 "	25
" 14..	"	30422	Jno. E. Gayfer.....	1 "	20
" 14..	"	30423	J. H. Nasmyths, Woodstock.. ..	1 "	25
" 15..	"	30428	Deans & Walker, Gault.....	1 "	20
" 15..	"	30430	Dunke & Co., Berlin.....	1 "	20
" 15..	"	30433	Beck & Schell, Berlin	3 "	30
" 16..	"	30434	Walter Beattie, Guelph.	1 "	20
DISTRICT OF MANITOBA—					
Aug. 6..	Cream of Tartar	25612	Winnipeg Drug Hall, Winnipeg.. .	6 ozs....	15
" 6..	"	25615	Cranston's Drug Store, Winnipeg	6 " ..	30
" 6..	"	25618	W. W. Bradshaw, Winnipeg	6 " ..	20
" 6..	"	25621	Colcleugh's Drug Store, Winnipeg.....	6 " ..	45
" 7..	"	25624	W. F. C. Braithwaite, Winnipeg.....	6 " ..	25
" 7..	"	25627	Gordon Mitchell Co., Winnipeg.. .	6 " ..	10
" 7..	"	25637	Connell & Co., Winnipeg.....	6 " ..	20
" 7..	"	25640	The T. Eaton Co.....	6 " ..	15
" 10..	"	25652	R. D. Bruce, Winnipeg.. .	6 " ..	25
" 10..	"	25655	Thornton Andrews	6 " ..	20

BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.		Opinion of the Chief Analyst.
		Acidity per 100 grammes.	Calculated to Bi- tartate of potas- sium.	

Nat. Drug & Chem. Co., Ltd., Montreal.	Nat. Brand guaranteed 100 per cent. pure put up in 1 lb. pkgs.	524	98·5	
E. W. Gillett & Co., Toronto....	522	98·1	
Pure Gold Co., Toronto.....	Boxes marked Pure French Cream of Tartar, war- ranted 8 oz. net.	466	87·6	
Lyman Sons & Co., Montreal..	480	90·2	
Lockerby Bros. Ltd.....	"Cherry Blossom brand" guaranteed pure and free from adulteration what- ever.	Consists of acid phosphate and starch — Adulter- ated.
L. Chaput Fils & Co., Montreal..	478	90·9	
" "	470	88·4	

E. W. Gillett & Co., Toronto....	Mr. Inspector Kidd has invoiced all these samples of Cream of Tartar.	492	92·5	Contains burnt alum and starch in addition to bi- tartrate of potash—Ad- ulterated.
" "		528	99·2	
Lucas Steele & Bristol, Hamilton.		494	92·9	
Gillott & Co., Toronto.....		528	99·2	
Lyman Bros, Toronto..		476	89·5	
Gillott & Co.....		504	94·7	
W. G. Dunn, Hamilton.....		526	
W. F. Lally & Co., Hamilton....		470	88·4	
Gorman & Eckart, London.....	512	96·3		
J. Winer & Co., Hamilton. . .	490	92·1		

Martin, Bole, Wynne Co., Winni- peg.	{		486	92·0	{ Sodium Carbonate—Adul- terated, perhaps a blun- der in dispensing.	
Lyman Bros., Toronto			434	81·6		
Martin, Bole, Wynne Co., Winni peg.			490	92·1		
Not known.....		{ Mr. Inspector Larivière has invoiced all his samples as Cream of Tartar.				
Lyman Sons, Montreal.....				471		88·7
Not known.....				492		92·5
"			528	99·2		
"			506	95·1		
"		524	98·5			
"		494	92·9			

TABLE III.—RECORD OF SAMPLES OF CREAM OF TARTAR ANALYZED

Date of Collection.	Name of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	
				Quantity.	Cents.
1907.			DISTRICT OF CALGARY—		
Aug. 17..	Cream of Tartar	28831	C. S. Pringle, Medicine Hat.....	6 ozs..	30
" 17..	"	28832	L. B. Cochran, Medicine Hat.....	6 " ..	20
" 17..	"	28833	B. F. Souch, Medicine Hat	6 " ..	25
" 17..	"	28834	Leonard & Harris.....	6 " ..	45
" 17..	"	28835	E. M. Cawker.....	6 " ..	25
" 29 .	"	28836	Revillon Bros., Edmonton.....	3 pkgs..	50
" 29..	"	28837	The Acme Co. Ltd., Edmonton....	6 ozs....	20
" 29..	"	28838	K. McKenzie & Co., Edmonton.....	3 pkgs..	30
" 29..	"	28839	The Capital Mercantile Co., Edmonton.....	3 " ..	50
" 29..	"	28840	L. Lambert, Edmonton.....	3 tins...	75

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BY INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	RESULTS OF ANALYSIS.		Opinion of the Chief Analyst.
		Acidity per 100 grammes.	Calculated to Bi- tartate of potas- sium.	

R. W. FLETCHER, INSPECTOR.

Lyman Sons & Co., Montreal....	Mr. Inspector Fletcher has invoiced all these samples as Cream of Tartar.	482	90·6	(Available) contains bi- carbonate of soda, doubtful.
W. Braid & Co., Vancouver, B.C.		496	93·2	
Bole Drug Co., Calgary..		500	94·0	
The Dyson Co., Winnipeg.		482	90·6	
Bole Drug Co., Winnipeg		418	88·6	
E. W. Gillett & Co., Toronto....		506	95·1	
" "		344	64·7	
" "		512	96·3	
Pure Gold Mfg. Co., Toronto....		508	95·5	
The Dyson Co., Winnipeg. ...		474	89·1	

APPENDIX J.

BULLETIN No. 144—CONDENSED MILK

OTTAWA, January 3, 1908.

W. J GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report of work upon 142 samples of condensed milk collected in July and August of last year.

The numbers obtained from each Inspectoral district, are as follows :—

	Unsweetened.	Sweetened.
Nova Scotia	2	3
Prince Edward Island	1	3
New Brunswick	3	7
Quebec	11	9
St. Hyacinthe	0	5
Montreal	3	12
Ottawa	5	5
Kingston	6	10
Toronto	3	7
London	3	4
Manitoba	5	10
Calgary	6	10
British Columbia	5	10
	47	95

A sample (No. 31173) of an Infant's food, was collected, by mistake, in the district of Prince Edward Island. In the Calgary district, two different brands, as mistaken duplicates, were obtained, under the number 28780.

Details of work done in this laboratory, are given in Tables I, II, and III. In Table IV an attempt is made to calculate the degree of condensation of the original milk, and the fat content of such milk.

The conclusions thus reached possess considerable interest ; but they must not be taken as fully established, since the methods of calculation involve certain hypotheses as explained in the accompanying notes.

I may summarize the more important results of this investigation, as follows :—

1. Condensed milk, should mean the reduction of volume of normal milk, by evaporation of a greater or less portion of its water.
2. When sugar is added, this fact should be stated on the label : and preferably, if not necessarily, in the name of the article, as *Sugared* or *Sweetened* condensed milk.
3. The word *Cream*, is largely used to designate condensed milk. This is incorrect, and should be made illegal. As a matter of fact, these so-called “creams” are not any richer in milk fat than the sugared condensed milks, and many of them are distinctly poorer.

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4. Among the samples examined, only one (No. 25628) is entitled to be called a cream.

5. The average milk value of most of these samples, shows them to be about 2·3 to 2·5 times the value of normal whole milk. Hence, a dilution to about two and a half (2·5) times their volume, results in converting them, for practical purposes, into milk.

The instructions for dilution printed upon the labels, are quite misleading in many cases. "For making a rich cream add from one to two parts pure water." The result would be a liquid containing about 3 to 4 per cent. of milk fat: and would be in no sense a "rich cream."

Several brands advise the addition of three parts water, to make "a pure rich, economical milk." Such a dilution would give a resultant containing about 2 per cent. of fat:—The sugared milks bear larger dilution, without evident reduction of "body"; but the fat content being practically identical with that of the non-sugared kinds, the product of dilution cannot be regarded as other than a very poor milk, thickened with sugar. One brand advises the addition of four (4) parts of water, to produce a rich milk. This would give an article containing distinctly less than 2 per cent. of milk fat.

It may be contended that the consumer should use his own judgment in diluting. While this is true, it is no justification of the manufacturer who states that the product will be "*a rich milk*," &c.

6. *Duplicates*, as collected by our inspectors, are always distinct, sealed packages. They do not necessarily represent the same batch, and even when they do so, it does not follow that they are strictly similar in composition. This matter has been considered exhaustively by the late Chief Analyst. (See Bulletin 69, page 20). "I am not convinced that *absolute* uniformity of product is attainable in any condensed milk factory." This conclusion was reached after very extended work done upon samples which had been manufactured under Mr. Macfarlane's direction, in five different factories, and with every attention to detail. The results now reported indicate that, while a general approximation to a type is found among samples bearing the same name, occasional deviations of considerable amount occur.

I beg to recommend the publication of this report as Bulletin No. 144.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

CONDENSED MILK.

This is generally understood to be *whole milk*, from which a more or less considerable portion of the water has been removed by evaporation.

No legal definition or standard for this article has been established in Canada.

In the United States, the following definitions were legally authorized in June, 1906.

1. *Condensed Milk, Evaporated Milk*, is milk from which a considerable portion of water has been evaporated, and contains not less than twenty-eight per cent of milk solids, of which not less than twenty-seven and five tenths (27.5) per cent is milk fat.

According to this definition, Condensed Milk should contain at least seven and seven tenths (7.7) per cent of milk fat.*

2. *Sweetened Condensed Milk*, is milk from which a considerable portion of water has been evaporated, and to which sugar (sucrose) has been added, and contains not less than twenty eight (28) per cent of milk solids, of which not less than twenty seven and five tenths (27.5) per cent is milk fat.

3. *Condensed Skim milk*, is skim milk from which a considerable portion of water has been evaporated.

4. *Evaporated Cream, Clotted Cream*, is cream from which a considerable portion of water has been evaporated.

The same authority defines milk as containing a minimum of 3.25 per cent, and cream as containing a minimum of 18 per cent of milk fat.

To produce condensed milk of standard quality, as above defined, from milk of minimum standard quality, 2.37 lbs. of milk, are required for each 1 lb. of condensed milk;* that is, about 2.4 volumes will be concentrated into 1 volume, or the concentration will be 2.4. In order to make such a product represent normal milk, it is only necessary to add to it $(2.4 - 1) = 1.4$ volumes of water. Of course, where richer milk is used, the product will be of a higher grade, for the same degree of concentration; or, conversely, a less concentration will give a standard condensed milk.

When sugar is added, it is evident that the concentration must proceed further in order to give a product containing the same weight percentage of fat. The accompanying tables show that samples of plain, concentrated milks, containing about eight per cent of fat, possess a mean density of about 1.075; while sugared samples, as found on the market, with about 8 per cent of fat, have a density of 1.310 to 1.320.

In table IV, an attempt has been made to calculate from analytical data, the volume concentration, and the fat content of the original milk. In order to this end, it is necessary to make certain assumptions, chief of which are the following:—

(a.) That the non-fat solids of milk are not increased or diminished by the processes of manufacture.

(b.) That the non-fat solids of the milk are known. (This table is calculated on a basis of 9 per cent., and also, of 8.5 per cent., for non-fat solids. In Bulletin 142 will be found reasons for adopting 8.5 as a minimum for non-fat solids. Better grades of milk, as found in Canada indicate 9 per cent. non-fat solids.)

(c.) That, where cane sugar has been added, the amount used is 40 per cent. of the weight of the finished product. **

On account of the assumptions which it involves, this table must be regarded as approximately correct only. That its indications are not far removed from the truth is shown by their close correspondence with results derived from independent data. The concentration for non-sugared milks varies between 2.19 and 2.69; while it has been shown that, on the basis of the United States standard, this value, for minimum quality

* $\frac{27.5}{100} \times 28 = 7.7$.

† If m parts by weight of milk, lose w parts of water on concentration, the resultant concentrate will weigh $m - w$; and $\frac{3.25m}{100} = \frac{7.7(m - w)}{100}$ Whence $(m - w) : m :: 3.25 : 7.7 = \frac{1}{2.37}$

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milk, would be about 2·4. Assuming 9 per cent for non-fat solids in the original milk, these extremes become 2·07 and 2·54. In the case of sugared milks, the concentration works out to from 2·43 volumes to 3·64 volumes, on the basis of 8·5 per cent non-fat solids.

The samples now reported (142 in number) are classified as *non-sweetened* condensed milk (Table II) and *sweetened* condensed milk (Table III).

A better name for the former class would be simply *Condensed milk*. But it happens that the sweetened variety was first placed upon the market, at least in large amount; † and the name *Condensed milk* carries with it, to most purchasers the idea of a sugared milk. Hence the term *Non-sweetened* or *plain* comes to be a more or less necessary distinction.

Many of the non-sugared milks now reported were sold as Cream; and one of them is distinctly named such on the label. With the single exception of a sample (No. 25628) obtained in Winnipeg, none of these are cream; and are, indeed, no richer in milk fat than most of the sugared milks. It is probable that the extensive use of the term *Creams* for this class of condensed milk, is due to its convenience as distinguishing them from the sweetened kinds; but such a use of the word cream should be made illegal, not only in the interest of the purchaser, but also in that of any manufacturer, who may wish to put a true cream on the market.

Owing to the absence of any legal standard for this class of goods, it is impossible to characterize the samples now reported, as genuine or otherwise. In Table II, the unsweetened milks are arranged alphabetically, according to the name of the brand; and in Table III, the sugared milks are treated in the same fashion.

It will be noted that, of nine (9) brands of unsweetened milk, only one reaches the United States standard of 7·7 per cent milk fat, (No. 25628, which contains 25·20 per cent of fat is a true cream; and cannot be classed with the other samples, which although sold under the name "Cream" are merely ordinary concentrated milks.)

Of nineteen (19) brands of sugared milks, only three fall distinctly below the 7·7 per cent standard for fat. One of these brands (Pheasant) contains only 5·10 per cent of fat; and is a condensed skim-milk.

Condensed milk was made the subject of inspection in 1897 (Bulletin No. 54), and in 1900 (Bulletin No. 69). Eighteen brands were represented in the collections made in 1897 and 1900. Of the 28 different brands, represented by the present collection, only eight bear names which appear in Bulletins 54 and 69. The following synopsis gives a comparison of results as found in 1900, with those recorded in the present report, for the eight brands which appear in both collections:—

NAME OF BRAND.	INSPECTION OF 1900.		PRESENT INSPECTION,	
	Samples.	Fat p.c.	Samples.	Fat p.c.
Clover.....	1	5·43	9	7·91
Eagle.....	23	8·78	12	8·00
Export.....	13	10·32	3	8·23
Jersey*.....	9	6·25	8	8·08
Mayflower.....	1	8·94	2	7·50
Nestle's.....	4	8·98	3	7·87
Owl.....	13	9·38	2	7·68
Reindeer.....	15	9·25	20	8·61

** In Bulletin 54 (January 1898) appear the results of analysis of 92 samples of condensed milk, in which the added sugar was determined, as closely as possible, and an average of about 40 per cent was found. The amount, however, varied from about 36 per cent to 43 per cent, and in one brand reached 47 per cent.

† Thus, of 16 brands examined in 1898, only 3 contained no sugar; while of 12 brands examined in 1900, only 2 brands contained no sugar.

* From Bulletin 54, inspection of 1897.

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In Tables II and III, it is apparent that a high degree of uniformity in milk-fat value characterizes the brands in which considerable numbers have been analysed. At the same time, occasional variation occurs; a matter not at all surprising when the conditions of manufacture are kept in mind. It makes it important however, to distinguish between results obtained from work upon a single sample, and those obtained from work upon a considerable number of samples. It is only when an average result, obtained by analyzing several samples, is presented that we are justified in accepting it as typical for the brand in question.

A. MCGILL,
Chief Analyst.

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TABLE II.—UNSWEETENED CONDENSED MILK.

Name of Brand.	Sample.	Density.	MILK SOLIDS.		
			Total.	Fat.	Non-Fat.
Anchor	33340	1·070	25·55	6·50	19·05
Carnation	32172	1·065	24·94	6·93	18·01
Dahl's	32166	1·033	11·66	6·77	4·89
Gold Reef	25628	0·987	31·94	25·20	6·74
Jersey	25629	1·076	27·93	7·47	20·46
"	25649	1·070	28·70	8·59	20·11
"	26268	1·075	27·23	8·59	18·64
"	26272	1·074	24·85	8·05	16·80
"	32173	1·083	30·34	7·92	22·42
"	32807	1·073	29·01	7·91	21·10
"	32815	1·076	25·61	7·94	17·67
"	34039	1·079	30·03	8·20	21·83
	Means.. ..	1·076	27·96	8·08	19·88
Peerless	25643	1·076	27·46	6·35	21·11
"	25646	1·078	27·46	6·35	21·11
"	26256	1·073	25·64	5·70	19·94
"	26259	1·072	25·65	5·98	19·67
"	26273	1·082	29·68	7·91	21·77
"	28769	1·074	27·23	6·65	20·58
"	28776	1·067	25·63	6·40	19·23
"	28780	1·075	25·83	6·93	18·90
"	30404	1·075	26·49	6·18	20·31
"	33338	1·070	25·65	6·13	19·52
"	34036	1·071	30·04	6·94	23·10
	Means	1·074	26·98	6·50	20·48
Reindeer Cream	26263	1·082	25·97	6·94	19·03
"	26271	1·081	29·00	7·34	21·66
"	29528	1·079	25·26	7·46	21·80
"	34038	1·081	29·11	7·04	22·07
	Means	1·081	28·33	7·20	21·13
St. Charles	26254	.....	27·92	6·66	21·26
"	26267	1·081	29·30	7·20	22·10
"	26269	1·085	28·58	6·22	22·36
"	26270	1·074	26·93	6·58	20·35
"	28767	1·072	25·10	6·64	18·46
"	28771	1·070	25·23	6·95	18·28
"	28774	1·073	25·37	6·23	19·14
"	29526	1·067	25·01	7·44	17·57
"	30381	1·085	31·08	7·63	23·45
"	30389	1·075	24·48	7·16	17·32
"	32174	1·071	27·96	7·48	20·48
"	32803	1·078	29·34	7·50	21·84
"	33332	1·075	24·36	7·48	16·88
"	33404	1·079	28·43	6·75	21·68
"	34037	1·082	28·06	7·18	20·88
"	34040	1·070	25·86	8·49	17·37
	Means	1·071	27·06	7·10	19·96
Victor.. ..	29529	1·082	29·64	7·69	21·95
"	31171	1·076	28·05	6·41	21·64
"	32175	1·079	29·75	7·90	21·85
"	33405	1·081	29·67	7·70	21·97
	Means	1·080	29·28	7·43	21·85

TABLE III—SWEETENED CONDENSED MILK.

Name of Brand.	Number.	Density.	SOLIDS.		
			Total.	Fat.	Difference.
Challenge	26257	.....	69·12	7·60	61·52
"	32802	.....	68·00	7·20	60·80
"	33333	.....	69·57	7·32	62·25
	Means	1·30	68·90	7·37	61·53
Clover.....	092	.....	71·60	8·15	63·45
"	26264	.....	71·35	7·37	63·98
"	29533	.....	69·82	8·35	61·47
"	32176	.....	71·55	8·40	63·15
"	32479	.....	72·50	7·87	64·63
"	32484	.....	73·25	8·00	65·25
"	32812	.....	71·92	8·12	63·80
"	33336	.....	71·45	8·00	63·45
"	33403	.....	72·60	7·95	64·65
	Means	1·32	71·78	7·91	63·87
Diploma.....	33339	1·32	73·07	8·92	64·15
Eagle	093	.....	70·10	8·00	62·10
"	30378	.....	70·45	8·67	61·78
"	30392	.....	69·55	7·87	61·68
"	32171	.....	68·05	7·57	60·48
"	32476	.....	68·90	8·32	60·58
"	32477	.....	66·05	7·75	58·30
"	32478	.....	69·12	8·75	60·37
"	32482	.....	70·51	7·82	62·69
"	32483	.....	66·57	7·87	58·70
"	32804	.....	68·87	7·50	61·37
"	33337	.....	65·67	7·60	58·07
"	34033	.....	68·60	8·25	60·35
	Means	1·31	68·50	8·00	60·50
Empire	32164	1·31	70·82	8·55	62·27
Export.	25644	.....	70·27	8·25	62·02
"	25645	.....	69·12	7·70	61·42
"	32811	.....	69·20	8·75	60·45
	Means	1·32	69·53	8·23	61·30
Express	29527	.....	67·95	7·95	60·00
"	31172	.....	69·44	7·90	61·54
	Means	1·31	68·69	7·93	60·76
Gold Seal.....	094	.....	66·17	7·90	58·27
"	25633	.....	69·10	7·20	61·90
"	25648	.....	71·05	7·35	63·70
"	26262	.....	70·05	7·70	62·35
"	28773	.....	70·35	7·60	62·75
"	28779	.....	68·72	7·25	61·47
"	28780	.....	69·75	7·35	62·40
"	32162	.....	70·02	7·50	62·52
"	32167	69·95	7·25	62·70
"	32808	68·82	7·25	61·57
"	34035	66·35	7·35	59·00
	Means	1·31	69·12	7·33	61·79

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TABLE III—CONDENSED SWEETENED MILK—Continued

Name of Brand.	Number.	Density.	SOLIDS.		
			Total.	Fat.	Difference.
Good Luck.....	25642	.....	70·27	7·65	62·62
"	32810	.....	69·37	7·62	61·75
"	33334	.....	67·70	7·65	60·05
"	33402	.....	70·00	8·00	62·00
	Means .—	1·31	69·34	7·73	61·61
Lion.....	31170	1·31	67·35	7·62	59·73
Mayflower	29530	.....	70·97	7·29	63·68
"	32814	.....	69·62	7·72	61·90
	Means	1·31	70·30	7·50	62·80
Nestles... ..	25632	.....	69·52	8·37	61·15
"	32480	.....	70·80	8·12	62·68
"	34031	.....	64·72	7·12	57·60
	Means	1·30	68·35	7·87	60·48

TABLE III.—SWEETENED CONDENSED MILK.

Name of Brand.	Number.	Density.	Solids.		
			Total.	Fat.	Difference.
Oak.....	095	.....	70·65	8·42	62·23
".....	25631	.....	70·57	8·75	61·82
".....	25647	.....	71·84	8·00	63·84
".....	28775	.....	70·70	8·57	62·13
".....	31174	.....	72·27	9·12	63·15
".....	32170	.....	69·35	8·20	61·15
	Means.....	1·31	70·90	8·51	62·39
Owl.....	29525	.....	69·75	7·62	62·13
".....	32809	.....	73·30	7·75	65·55
	Means..	1·33	71·53	7·68	63·85
Pheasant	32165	.....	69·16	5·32	63·84
".....	32169	.....	67·42	4·87	62·55
	Means.....	1·31	68·29	5·10	63·29
Purity.. ..	29531	1·30	69·42	7·87	61·55
Reindeer.	25634	.....	72·40	8·40	64·00
".....	26255	.....	74·12	8·88	65·24
".....	26258	.....	73·16	8·54	64·62
".....	26260	.....	73·40	8·52	64·88
".....	26265	.....	74·64	8·58	66·06
".....	28766	.....	71·64	8·30	63·34
".....	28768	.....	71·96	8·70	63·26
".....	28770	.....	72·64	8·58	64·06
".....	28772	.....	73·06	8·90	64·16
".....	28778	.....	73·84	8·94	64·90
".....	29524	.....	71·25	8·25	63·00
".....	30399	.....	74·36	8·44	65·92
".....	32163	.....	72·32	8·52	63·80
".....	32168	.....	73·18	8·60	64·58
".....	32805	.....	72·74	8·34	64·40
".....	32813	.....	72·18	8·60	63·58
".....	33331	.....	73·20	8·91	64·29
".....	33401	.....	67·14	8·32	58·82
".....	34032	.....	73·50	8·16	65·34
".....	34034	.....	72·00	9·80	62·20
	Means..	1·32	72·63	8·61	64·02
Silver Cow.....	091	.....	71·35	7·95	63·40
".....	25630	.....	68·42	7·55	60·87
".....	26261	.....	70·70	7·75	62·95
".....	26266	.....	71·42	7·85	63·57
".....	28777	.....	69·00	7·45	61·55
".....	29532	.....	66·17	7·35	58·82
".....	30384	.....	72·95	7·72	65·23
".....	32481	.....	70·75	7·50	63·25
".....	32485	.....	72·62	8·22	64·40
".....	32806	.....	71·25	7·40	63·85
".....	33335	69·12	7·35	61·77
	Means.....	1·31	70·34	7·64	62·70
Stratheona.....	32801	1·28	65·00	8·32	56·68

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TABLE IV. APPROXIMATE CONCENTRATION, AND FAT CONTENT OF ORIGINAL MILK—CALCULATED.

Name of Brand.	Samples Examined.	Density.	SOLIDS.			Cane Sugar.	CONCENTRATION.		ORIGINAL FAT.	
			Total.	Fat.	Difference.		9 p.c.	8.5 p.c.	9 p.c.	8.5 p.c.
Anchor	1	1.070	25.55	6.50	19.05	—	2.20	2.30	3.07	2.90
Carnation	1	1.065	24.94	6.93	18.01	—	2.07	2.19	3.46	3.27
Dahl's	1	1.033	11.66	6.77	4.89	—	—	—	—	—
Gold Reef	1	0.987	31.94	25.20	6.74	—	—	—	—	—
Jersey	8	1.076	27.96	8.08	19.88	—	2.20	2.40	3.66	3.45
Peerless	11	1.074	26.98	6.50	20.48	—	2.37	2.51	2.85	2.69
Reindeer Cream	4	1.081	28.33	7.20	21.13	—	2.46	2.61	3.07	2.90
St. Charles	16	1.071	27.06	7.10	19.96	—	2.31	2.45	3.20	3.02
Victor	4	1.080	29.28	7.43	21.85	—	2.54	2.69	3.06	2.90
Challenge	3	1.30	68.90	7.37	61.53	40.00	3.00	3.17	3.08	2.81
Clover	9	1.32	71.78	7.91	63.87	"	3.40	3.60	3.00	2.83
Diploma	1	1.32	73.07	8.92	64.15	"	3.44	3.64	3.33	3.14
Eagle	12	1.31	68.50	8.00	60.50	"	2.90	3.07	3.51	3.32
Empire	1	1.31	70.82	8.55	62.27	"	3.15	3.33	3.45	3.26
Export	3	1.32	69.53	8.23	61.30	"	3.03	3.26	3.49	3.30
Express	2	1.31	68.69	7.93	60.76	"	2.93	3.10	3.44	3.26
Gold Seal	11	1.31	69.12	7.33	61.79	"	3.08	3.26	3.03	2.96
Good Luck	4	1.31	69.34	7.73	61.61	"	3.05	3.23	3.22	3.04
Lion	1	1.31	67.35	7.62	59.73	"	2.80	2.97	3.47	3.28
Mayflower	2	1.31	70.30	7.50	62.80	"	3.22	3.41	2.96	2.80
Nestle's	3	1.30	68.35	7.87	60.48	"	2.85	3.02	3.46	3.28
Oak	6	1.31	70.90	8.51	62.39	"	3.16	3.33	3.42	3.25
Owl	2	1.33	71.53	7.68	63.85	"	3.42	3.63	2.90	2.74
Pheasant	2	1.31	68.29	5.10	63.29	"	3.29	3.48	1.97	1.86
Purity	1	1.30	69.42	7.37	61.55	"	3.02	3.20	3.29	3.11
Reindeer	20	1.32	72.63	8.61	64.02	"	3.42	3.61	3.23	3.04
Silver Cow	11	1.31	70.34	7.64	62.70	"	3.21	3.41	3.03	2.96
Strathcona	1	1.28	65.00	8.32	56.68	"	2.30	2.43	4.48	4.23
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The 'Concentration,' i.e. number of volumes of milk which are condensed into one volume and the 'Original Fat,' i.e. percentage of fat in the milk employed in manufacture, are found by the following formulas :—

- Let c = Concentration.
- " a = Non-fat solids as found.
- " a¹= " in normal milk.
- " s = Specific gravity of the sample.
- " s¹= " normal milk.
- " f = Fat, as found, per cent.
- " f¹= " per cent in original milk used in manufacture.

Then $c = \frac{as}{a^1 s^1}$ and $f^1 = \frac{fa^1}{a}$
If we take s¹ = 1.03 and a¹ = 9, these formulas become

$$c = \frac{as}{9.27} \qquad f^1 = \frac{9f}{a}$$

If we take s¹ = 1.03 and a¹ = 8.5, then the formulas become

$$c = \frac{as}{8.755} \qquad f^1 = \frac{8.5f}{a}$$

These formulas have been used in calculating the numbers under the headings *Concentration* and *Original Fat*, in Table IV.

TABLE I.—RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No of Sample.	Name and Address of Vendor.	Cost,		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907						
DISTRICT OF NOVA SCOTIA—						
Aug. 5.	Canned Milk...	33401	R. B. Adams, Duke St., Halifax, N. S.	3 tins.	45	Truro Condensed Milk Co., Truro, N.S.
"	" ...	33402	J. D. Stewart, Grafton St., Halifax, N. S.	"	30	St. Charles Condensing Co., St. Charles, Ill.
"	" ...	33403	Jas. Hogan, Prince St., Halifax, N. S.	"	36	Truro Condensed Milk Co., Truro, N.S.
"	Canned Cream..	33404	Lardei, Hubley & Co., Barrington St., Halifax, N.S.	"	45	St. Charles Condensing Co., Ingersoll, Ont.
"	" ..	33405	Dillon Bros., Sackville St., Halifax, N. S.	"	30	Charlottetown Condensed Milk Co., Charlottetown, P.E.I.
DISTRICT OF PRINCE EDWARD ISLAND —						
July 30	Canned Milk....	31170	Sterns Bros., Souris.....	3 tins.	45	Charlottetown Condensed Milk Co., Charlottetown
" 31	" Cream ..	31171	Pool & Thompson, Montague Bridge.	"	"	" "
Aug. 6	" Milk....	31172	P. McNutt & Son, Malpeque....	"	"	" "
.....	.....	31173	Jardine & Bernard, Kensington.	"	1.25	Henri Nestle, London.....
" 8	" Milk....	31174	Sanderson & Co., Charlottetown.	"	45	Charlottetown Condensed Milk Co.
DISTRICT OF NEW BRUNSWICK—						
July 25	Canned Milk...	29524	Baird & Peters, Ward St., St. John, N. B.	3 tins.	45	Truro Condensed Milk Co., Ltd., Truro, N.S.
"	" ...	29525	Dearborn & Co., Prince William St., St. John, N.B.	"	"	Canada Milk Condensing Co., Antigonish Co., N.S.
"	Canned Cream .	29526	W. A. Simonds, 89 Union St., St. John, N.B.	"	60	St. Charles Condensing Co., Ingersoll, Ont.
"	" Milk....	29527	The Geo. E. Barbour Co., Ltd., North Wharf., St. John, N.B.	"	36	Charlottetown Condensed Milk Co., Ltd., Charlottetown, P.E.I
Aug. 6	" Cream..	29528	Sussex Mercantile Co., Ltd., Sussex, Kings Co., N.B.	"	48	Truro Condensed Milk and Canning Co., Truro, N.S.
" 7	" " ..	29529	W. G. Bell, 314 Main St., Moncton, N.B.	"	54	The Charlottetown Condensed Milk Co., Ltd., Charlottetown, P.E.I.
" 9	" Milk....	29530	J. B. Snowball & Co., Ltd., Chatham, N.B.	"	45	Truro Condensed Milk Co., Ltd., Truro, N.S.
" 20	" " ...	29531	Inches & Grimmer, St. Stephen, N.B.	"	"	St. Charles Condensing Co., Ingersoll, Ont.
" 21	" " ...	29532	Geo. T. Whelpley Estate, Queen St., Fredericton, N.B.	"	"	" "
" 23	" " ...	29533	W. S. Skillen, Main St., Woodstock, N.B.	"	"	Truro Condensed Milk Co., Truro, N.S.

SESSIONAL PAPER No. 14

AN THE LABORATORY OF THE INLAND REVENUE DEPARTMENT.

Inspector's Report.	Name of Brand.	RESULTS OF ANALYSIS.							Remarks.
		Specific grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500 c.cs. warm water.	
R. J. WAUGH, INSPECTOR.									
"Reindeer Brand".....	Reindeer	1·2820	32·86	67·14	.....	8·32	.....	49·94	
"Good Luck Brand," Prepared at Ingersoll, Ont.	Good Luck	1·3080	30·00	70·00	.....	8·00	.....	53·07	
"Clover Brand," private mark, 2683.	Clover.....	1·3218	27·38	72·62	.....	7·95	.....	55·55	
Labeled St. Charles, un- sweetened, Evaporated Cream.	St. Charles.....	1·0787	71·56	28·43	1·24	6·75	11·49	.....
"Victor Brand," Evapo- rated Cream.	Victor.....	1·081	70·33	29·67	1·65	7·70	11·15	.....
T. MOORE INSPECTOR.									
"Lion Brand," guaran- teed absolutely pure.	Lion	1·3080	32·65	67·35	.....	7·62	....	49·25	
"Victor Brand," same as above, except Evapo- rated Cream instead of milk.	Victor	1·076	71·95	28·05	1·68	6·41	10·33	.....
"Express Brand," same as above.	Express	1·3097	30·56	69·44	.....	7·92	.....	50·25	
Made with best cow's milk.	Nestle's Food...	Nestle's Milk Food..				.....	.....	.....	Collected by mistake.
"Oak Brand," same as Lion Brand.	Oak	1·3072	27·73	72·27	.....	9·12	....	51·92	
J. C. FERGUSON, INSPECTOR.									
"Reindeer Brand," trade mark, Reindeer's Head.	Reindeer	1·3097	28·75	71·25	.....	8·25	.....	53·82	
"Owl Brand," Register- ed Trade Mark, Owl's Head, guaranteed pure; marks 8, 4, 4.	Owl.....	1·3192	30·25	69·75	.....	7·62	...	50·60	
Trade Mark, Cow, &c. Stencil Mark N O Es +	St. Charles....	1·0670	74·99	25·01	1·37	7·44	10·61	.....
"Express Brand," Train of Cars — Side, C. 58 on bottom of can, every can guaranteed.	Express	1·3046	32·05	67·95	.....	7·95	.....	50·00	
"Reindeer Brand," Trade Mark, Reindeer's Head, No. 731.	Reindeer Cream	1·0793	70·74	29·26	1·70	7·46	11·50	.....
"Victor Brand," Guar- anteed.	Victor	1·0817	70·36	29·64	1·60	7·69	12·18	....
"Mayflower Brand." Guaranteed.	Mayflower.....	1·3105	29·03	70·97	.....	7·29	.....	52·27	
Condensed Milk, Trade Mark Registered (Cow) + 178. Purity.	Purity.....	1·3043	30·58	69·42	.....	7·87	....	51·10	
Silver Cow, marks J. O. V +. Guaranteed.	Silver Cow	1·2970	33·83	66·17	....	7·35	.....	49·37	
No. 2573 Clover Brand. Every can guaranteed.	Clover	1·3166	30 18	69·82	...	8·35	...	51·37	

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF QUEBEC.—

July	22	Canned Cream..	26254	S. Charles Delage, 368 St. Joseph	3 tins.	45	St. Charles Evaporated Cream.
"	22	" Milk....	26255	Moise Pouilot, 367 St. Joseph...	3 "	45	Reindeer Brand Condensed Milk.
"	22	" Cream..	26256	S. A. Chabot, 271 St. Joseph....	3 "	45	Borden's, Ingersoll, Ont...
"	22	" Milk....	26257	" " ...	3 "	45	Bordens Condensed Milk Co., N.Y.
"	22	" "	26258	" "	3 "	45	Reindeer Condensed Milk.
"	22	" Cream..	26259	Charles S. Riverin, 55 de la Couronne.	3 "	60	Bordens Peerless Cream...
"	22	" Milk....	26260	" " ..	3 "	45	Reindeer Condensed Milk.
"	22	" "	26261	" " ..	3 "	45	St. Charles Condensing Milk.
"	22	" "	26262	" " ..	3 "	45	Bordens Condensed Milk, N.Y.
"	22	" Cream..	26263	Myrand S. Pouilot, 70 de la Couronne.	3 "	60	Reindeer Cream.
"	22	" Milk....	26264	" " ..	3 "	30	Clover Condensed Milk ...
"	22	" "	26265	" " ..	3 "	45	Reindeer Condensed Milk.
"	22	" "	26266	" " ..	3 "	45	Silver Cow Milk
"	22	" "	26267	" " ..	3 "	45	St. Charles Evaporated Cream.
"	23	" Cream..	26268	M. Boyce & Son, 21 Cote d'Abraham.	3 "	45	Jersey Cream Truro Condensed.
"	23	" " ..	26269	" " ..	3 "	45	St. Charles Evaporated Cream.
"	23	" " ..	26270	Isidore Voyer, 226 Richelieu	3 "	45	" " ..
"	23	" " ..	26271	M. W. Colman, 98 du Pont.	3 "	60	ReindeerEvaporated Cream
"	23	" " ..	26272	" "	3 "	60	Jersey Cream.....
"	23	" " ..	26273	O. Lacroix, 19 St. Joseph.	3 "	45	Bordens Peerless Evaporated Cream.

SESSIONAL PAPER No. 14

AT THE LABORATORY OF THE INLAND REVENUE DEPARTMENT—*Continued.*

Inspector's Report.	Name of Brand.	RESULTS OF ANALYSIS.						Remarks.	
		Specific grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.		Loss to 500 c. cs. warm water.
			p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	

E. BELAND, INSPECTOR.

.....	St. Charles.....	1·078	72·08	27·92	1·51	6·66	11·15	.....
.....	Reindeer.	1·3280	25·88	74·12	.....	8·88	.....	56·74
.....	Peerless	1·0730	74·36	25·64	1·68	5·70	10·74	.....
.....	Challenge.....	1·3023	30·88	69·12	.. ..	7·60	.....	51·97
.....	Reindeer.	1·3236	26·84	73·16	.. .	8·54	.....	54·58
.....	Peerless	1·072	74·35	25·65	1·31	5·98	10·47	.....
.....	Reindeer.	1·3236	26·60	73·40	.....	8·52	.. .	55·40
.....	Silver Cow.....	1·3097	29·30	70·70	.....	7·75	.....	54·00
.....	Gold Seal.....	1·3105	29·95	70·05	.....	7·70	.....	51·92
Badly decomposed ..	Reindeer Cream.	1·0820	74·03	25·97	1·23	6·94	10·81	.. .
.....	Clover..	1·3166	28·65	71·35	.....	7·37	.....	54·32
.....	Reindeer.	1·3315	25·36	74·64	.....	8·58	.....	56·32
.....	Silver Cow.....	1·3105	25·58	71·42	.....	7·85	.....	51·52
.....	St. Charles.....	1·081	70·70	29·30	1·20	7·20	11·36	.....
No. on Box, 1354. ..	Jersey.	1·075	72·76	27·23	1·28	8·59	10·61	.....
.....	St. Charles..	1·0850	71·42	28·58	1·52	6·22	10·73	.....
.....	"	1·074	73·08	26·93	1·47	6·58	10·61	.....
No. on Box, 581	Reindeer Cream.	1·0811	71·00	29·00	1·74	7·34	11·70	....
No. on Box, 1342. ...	Jersey.	1·074	75·15	24·85	1·60	8·05	11·08
.....	Peerless.	1·0820	70·32	29·68	1·62	7·91	11·43	.. .

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TABLE I.—RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF ST. HYACINTHE—

Aug.	6	Canned milk....	91	MacRae Bros., Richmond	3 tins.	60	St. Charles Condensing Co., Ingersoll, Ont.
"	8	"	92	Kings' Mines' Stores, Thetford..	" .	36	Truro Condensed Milk Co., Huntingdon, Que., and Truro, N.S.
"	9	"	93	Woodman & McKee, Coaticook .	" .	54	G. Borden, New York, U. S. A.
"	22	"	94	E. Goyette, Cowansville	" .	45	Bordens Condensed Milk Co., Ingersoll, Ont.
"	27	"	95	W. Ducharme, Magog	" .	50	Charlottetown Condensed Milk Co., Ltd., Charlotte-town.

DISTRICT OF MONTREAL—

July	23	Canned milk....	32801	W. H. Scroggie, Ltd., St. Catharine, West.	3 tins.	30	.....
"	24	"	32802	H. Poirier, 27 St. Catharie, West	" .	36	.....
"	24	Canned cream ..	32803	" ..	" .	45	.....
"	24	Canned milk....	32804	Currie Bros., 113 Bleury	" .	45	.....
"	24	" ...	32805	T. Elliott, 237 Bleury	" .	45	.....
"	24	"	32806	C. Spector, 18 Ontario, E	" .	45	.....
"	24	"	32807	Raymond Freres, 395 St. Lawrence.	" .	45	.....
"	25	"	32808	Laporte, Martin & Cie, Ltd., St. Peter A.	" .	32	.....
"	25	"	32899	" ..	" .	35	.....
"	25	"	32810	" ..	" .	27	.....
"	25	"	32811	" ..	" .	35	Charlottetown C. M. Co...
"	25	"	32812	" ..	" .	27	.....
Aug.	9	"	32813	Truro Condensed Milk Co., Huntingdon.	" .	45	.....
"	9	"	32814	" ..	" .	33	.....
"	9	"	32815	" ..	" .	39	.....

SESSIONAL PAPER No. 14

AT THE LABORATORY OF THE INLAND REVENUE DEPARTMENT—Continued.

Inspector's Report.	Name of Brand.	RESULTS OF ANALYSIS.							Remarks.
		Specific grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500. c.cs warm water.	
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	

J. C. ROULEAU, INSPECTOR.

Sliver Cow Brand.....	Silver Cow.....	1·3097	28·65	71·35	.....	7·95	.....	53·55	
.....	Clover	1·3097	28·40	71·60	.....	8·15	.....	50·65	
Tins stamped A.S.N.+ .	Eagle	1·3114	29·90	70·10	.....	8·00	.....	47·07	
.....	Gold Seal.....	1·3097	33·88	66·17	....	7·90	.....	50·75	
.....	Oak	1·3037	29·35	70·65	.....	8·42	.....	53·10	

J. J. COSTIGAN, INSPECTOR.

Strathcona Brand, marks A.S.Z.+.	Strathcona.....	1·2820	35·00	65·00	.....	8·32	.....	45·50	
Challenge Brand, M. L. O. +.	Challenge.....	1·3012	32·00	68·00	.....	7·20	.....	50·22	
St. Charles Brand	St. Charles.....	1·0776	70·70	29·34	1·74	7·50	10·67	.....
Eagle Brand. N. I. N.+.	Eagle.	1·3158	31·13	68·87	... .	7·50	.....	50·57	
Reindeer Brand, 501....	Reindeer	1·3072	27·26	72·74	.....	8·34	.....	54·30	
Silver Cow Brand, S. O. V.+.	Silver Cow.....	1·3097	28·75	71·25	.....	7·40	.....	54·45	
Jersey Cream Brand, 408	Jersey	1·073	70·99	29·01	1·45	7·91	11·97	... .
Gold Seal Brand, N. E. S.+.	Gold Seal.....	1·3023	31·18	68·82	.....	7·25	.....	50·80	
Owl Brand, 338.....	Owl.....	1·3448	26·70	73·30	.....	7·75	.....	55·05	
Good Luck Brand, S. N. J.+.	Good Luck.....	1·3046	30·63	69·37	.....	7·62	.....	52·70	
Export Brand	Export.....	1·3192	30·80	69·20	.....	8·75	.....	52·55	
Clover Brand, 587 . . .	Clover	1·3166	29·08	71·92	. . .	8·12	.....	54·10	
Reindeer Brand, 598....	Reindeer	1·3114	27·82	72·18	.....	8·60	.....	51·84	
Mayflower Brand, 599...	Mayflower.....	1·3097	30·38	69·62	.....	7·72	.....	52·10	
Jersey Cream Brand, 528	Jersey	1·076	74·39	25·61	1·52	7·94	11·15	.....

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF OTTAWA—

July 29	Canned milk....	34031	Medical Hall, Hull.....	3 tins.	60	National Drug and Chemical Co., Ottawa.
" 29	" ...	34032	"	3 " .	45	" " ..
" 29	" ...	34033	Modern Drug Store, Hull.	3 " .	55	Lyman Knox & Co., Montreal.
" 29	" ...	34034	"	3 " .	45	" " ..
" 29	" ...	34035	Thos. Payment, Ottawa....	3 " .	75	Ottawa Drug Co., Ottawa.
" 30	Canned cream ..	34036	F. A. Scott & Son, Ottawa	3 " .	60	Borden Condensed Milk Co.
" 30	" ..	34037	Bate and Co., Ottawa.....	3 " .	38	H. N. Bate & Son.....
" 31	" ..	34038	"	3 " .	60	"
" 31	" ..	34039	A. L. Pinard, Ottawa... ..	3 " .	45	"
" 31	" ..	34040	T. Lindsay, Ltd., Ottawa....	3 " .	38	The St. Charles Condensing Co., Ingersoll, Ont.

DISTRICT OF KINGSTON—

July 24	Canned milk....	32476	A. Glover, Earl St., Kingston...	3 tins.	45	Borden, Ingersoll, Ont....
" 24	" ...	32477	G. Mahood, Princess St., Kingston.	3 " .	60	"
" 24	" ...	32478	J. Reddin, Princess St., Kingston.	3 " .	60	"
" 24	" ...	32479	J. Crawford, Princess St., Kingston.	3 " .	60	Clover, Truro.....
" 24	" ...	32480	J. B. McLeod, Princess St., Kingston.	3 " .	1 00	Henri Nestle, Vevey, Switzerland.
" 24	" ...	32481	J. Kelly, Princess St., Kingston	3 " .	45	St. Charles, Ingersoll.....
" 26	" ...	32482	Wallbridge & Clark, Belleville Front.	3 " .	45	Borden, Ingersoll, Ont
" 26	" ...	32483	J. R. Harvey & Son, King St., Cobourg.	3 " .	60	"
" 26	" ...	32484	" " ..	3 " .	45	Clover Brand, Truro
" 26	" ...	32485	A. J. Gould, King St., Cobourg.	3 " .	45	St. Charles, Ingersoll.....

SESSIONAL PAPER No. 14

AT THE LABORATORY OF THE INLAND REVENUE DEPARTMENT—Continued.

Inspector's Report.	Name of Brand.	RESULT OF ANALYSIS.							Remarks.
		Specific grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 50° c.cs. warm water.	
			p. c.	p. c.	p. c.	p. c.	p. c.		

J. A. RICKEY, INSPECTOR.

Nestle Brand. Mark ×	Nestles.....	1·2879	35·28	64·72	7·12	47·92	Milk was not in good condition.
Truro Condensed Milk Co., Truro, N.S., 449.	Reindeer... . .	1·3114	26·50	73·50	. . .	8·16	.....	53·24
Eagle Brand, Borden Cond. Milk Co., N.Y. A O A +	Eagle	1·3029	31·40	68·60	.....	8·25	.....	49·95
Reindeer Brand, Truro Cond. Milk Co., N.S., 449.	Reindeer.. . .	1·3149	28·00	72·00	.....	9·80	.....	51·00
Borden Cond. Milk Co., Ingersoll. L O O +	Gold Seal....	1·2945	33·65	66·35	.....	7·35	.....	49·60
Peerless Brand. S C T V +	Peerless	1·0707	69·96	30·04	1·70	6·94	12·45	.....
St. Charles Brand. St. Charles Cond. Co., Ingersoll. S E T T +	St. Charles	1·082	71·94	28·06	1·69	7·18	11·15	.....
Reindeer Brand. Truro Cond. Milk and Can-ning Co., Truro, N.S. 994.	Reindeer Cream.	1·0811	70·89	29·11	1·78	7·04	11·70	....
Truro Cond. Co. Cut of cow on front of tin, 187.	Jersey	1·0793	69·97	30·03	1·52	8·20	11·63	
Cut of cow in gold on front of tin. N E O A +	St. Charles.....	1·070	74·14	25·86	1·03	8·49	11·29	...	

J. HOGAN, INSPECTOR.

Eagle Brand..	Eagle	1·2945	31·10	68·90	.....	8·32	.....	49·77	
"	"	1·3114	33·95	66·05	.....	7·75	...	48·92	
"	"	1·3112	30·88	69·12	.....	8·75	....	50·57	
.....	Clover.....	1·3166	27·50	72·50	.....	7·87	...	54·87	
.....	Nestles.	1·3029	29·20	70·80	.....	8·12	.....	51·50	
.....	Silver Cow	1·3080	29·25	70·75	....	7·50	.....	53·52	
.....	Eagle	1·3037	29·49	70·51	.....	7·82	.....	49·77	
.....	"	1·3037	33·43	66·57	.....	7·87	.....	47·20	
Clover Brand.....	Clover.....	1·3218	26·75	73·25	8·00	55·25	
.....	Silver Cow	1·3149	27·38	72·62	8·22	54·02	

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TABLE I.—RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF TORONTO—

Aug.	9	Canned milk....	33331	Gibbons Bros., 742 Queen St. East, Toronto.	3 tins.	45	Truro Condensed Milk Co., Ltd., Truro, N.S.
"	9	Canned cream ..	33332	W. J. McCullough, West Toronto Junction.	3 "	45	St. Charles Cond. Co., Branch Factory, Ingersoll, Ont.
"	12	Canned milk....	33333	Jno. O. Carpenter, 10 Market Square, Hamilton.	3 "	30	Borden's Condensed Milk Co., Branch Factory, Ingersoll, Ont.
"	12	" ...	33334	Peters & Bonnsall, 347 Barton St. East, Hamilton.	3 "	30	St. Charles Condensing Co., Branch Factory, Ingersoll, Ont.
"	15	" ...	33335	F. A. Wilson, 33 Queen St., St. Catherines.	3 "	38	" " ..
"	15	" ...	33336	J. T. Festing, 11 St. Paul St., St. Catherines.	3 "	30	Truro Condensed Milk Co., Truro, N.S.
"	19	" ...	33337	Lisson & Co., Niagara Falls.....	3 "	60	Borden's Condensed Milk Co., Branch Factory, Ingersoll, Ont.
"	21	Canned cream ..	33338	F. Guay, 318 Queen St. West, Toronto.	3 "	45	" " ..
"	21	Canned milk....	33339	John Butcher, 300 Queen St. West, Toronto.	3 "	23	Wills' United Dairies, made in England.
"	21	Canned cream ..	33340	Robt. Simpson Co., Ltd., Cor. Yonge and Queen Sts., Toronto	3 "	38	Prepared especially for Eby, Blain & Co., Ltd., Toronto, Sole Agents.

DISTRICT OF LONDON—

July	26	Canned milk....	30378	Chas. Nairns, Goderich	3 tins.	45	Borden Condensed Co.....
"	27	" ...	30381	Cardino Bros., Seaforth.....	3 "	45	A. M. Smith & Co., London
"	29	" ...	30384	A. Beattie & Co., Stratford.....	3 "	45	James Lumbers, Toronto..
"	29	Canned cream ..	30389	J. M. Adam, St. Marys.....	3 "	45	A. M. Smith & Co., London
"	30	Canned milk....	30392	Homer Robertson, Sarnia.....	3 "	75	Lyman Bros., Toronto
"	31	" ...	30399	G. Wineno, Sarnia.....	2 "	30	Vendor who bought from manufacturer in Truro, N.S.
Aug.	7	Canned cream ..	30404	Hugh Malcomson, Chatham....	3 "	45	Vendor.....

DISTRICT OF MANITOBA—

Aug.	7	Canned cream ..	25628	Hudson Bay Co., Winnipeg.....	3 tins.	60	Stones Sons, London, Eng.
"	7	" ...	25629	" "	3 "	45	The Truro Cond. Milk Co., Truro, N.S.
"	7	Canned milk....	25630	" "	3 "	45	St. Charles Cond. Co., St. Charles, Ill., U.S.A.

SESSIONAL PAPER No. 14

AT THE LABORATORY OF THE INLAND REVENUE DEPARTMENT—*Continued.*

Inspector's Report.	Name of Brand.	RESULTS OF ANALYSIS.							Remarks.
		Specific Grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500c. cs. warm water.	
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	

H. J. DAGER, INSPECTOR.

Reindeer Brand 376 ...	Reindeer	1·3183	26·80	73·20	...	8·91	...	54·75	
.....	St. Charles	1·075	75·64	24·36	1·39	7·48	9·45	...	
Challenge Brand, S S V +	Challenge	1·3097	30·43	69·57	...	7·32	...	52·85	
Good Luck Brand, L J N +	Good Luck	1·3097	32·30	67·70	...	7·65	...	53·25	
Silver Cow Brand, A T T +	Silver Cow	1·3012	30·88	69·12	...	7·35	...	51·87	
Clover Brand 507.	Clover	1·3272	28·55	71·45	...	8·00	...	56·50	
Eagle Brand, N J N +	Eagle	1·3105	34·33	65·67	...	7·60	...	48·87	
Peerless Brand, N O T E +	Peerless	1·0701	74·35	25·65	1·40	6·13	10·61	...	
Diploma Brand	Diploma	1·3192	26·93	73·07	...	8·92	...	53·80	
Anchor Brand, N J N L +	Anchor	1·070	74·45	25·55	1·08	6·51	10·47	...	

T. KIDD, INSPECTOR.

Eagle Brand	Eagle	1·3037	29·55	70·45	...	8·67	...	51·65	
.....	St. Charles	1·0846	68·92	31·08	1·72	7·63	13·10	...	
Made in St. Charles, Ill.	Silver Cow	1·3192	27·05	72·95	...	7·72	...	55·82	
Made by St. Charles Co., Ingersoll, Ont.	St. Charles	1·075	75·52	24·48	1·60	7·16	10·62	...	
Borden Cond. Milk Co., New York, U.S.A.	Eagle	1·3114	30·45	69·55	...	7·87	...	51·07	
Reindeer Brand	Reindeer	1·3245	25·64	74·36	...	8·44	...	55·40	
Peerless Brand, Ingersoll, Ont.	Peerless	1·0748	73·51	26·49	1·38	6·18	11·43	...	

A. C. LARIVIERE, INSPECTOR.

.....	Gold Reef	0·987	68·06	31·94	0·40	25·20	4·79	...	
.....	Jersey	1·0760	72·07	27·93	1·50	7·47	11·56	...	
.....	Silver Cow	1·3097	31·58	68·42	...	7·55	...	51·27	

8-9 EDWARD VII., A. 1909

TABLE I. —RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF MANITOBA.—

Aug.	7	Canned Milk. . .	25631	Hudson Bay Co., Winnipeg. . . .	3 tins.	45	Charlottetown Cond. Milk Co., Charlottetown, P.E.I.
"	7	" " . . .	25632	" " . . .	3 "	60	Henri Nestle, Vevey, Switzerland.
"	7	" " . . .	25633	" " . . .	3 "	45	Bordens Cond. Milk Co., New York.
"	7	" " . . .	25634	" " . . .	3 "	45	Truro Cond. Milk Co., Truro, N.S.
"	8	" " . . .	25642	J. Robinson Co., Winnipeg. . . .	3 "	40	St. Charles Cond. Co., St. Charles, Ill., U.S.A. and Ingersoll, Ont.
"	8	Canned Cream. .	25643	" " . . .	3 "	45	Bordens Cond. Milk Co., N.Y.
"	9	" Milk. . .	25644	Campbell Bros. & Wilson, Winnipeg.	3 "	35	Charlottetown Cond. Milk Co., Charlottetown, P.E.I.
"	9	" " . . .	25645	Sutherland Bros., Winnipeg. . . .	3 "	45	" " . .
"	9	" Cream. .	25646	T. J. Davis, Winnipeg.	3 "	45	Bordens Cond. Milk Co., N.Y.
"	9	" Milk. . .	25647	" "	3 "	35	Charlottetown Cond. Milk Co., Charlottetown, P.E.I.
"	9	" " . . .	25648	" "	3 "	35	Bordens Cond. Milk Co., New York, U.S.A.
"	9	" Cream. .	25649	Laurie Bros.	3 "	40	Truro Cond. Milk Co., Truro, N.S.

DISTRICT OF CALGARY.—

Aug.	17	Canned Milk. . .	28766	L. B. Cochran, Medicine Hat. . .	3 tins.	50	Truro Cond. Milk Co., Truro, N.S.
"	17	" Cream. .	28767	" " . . .	3 "	45	St. Charles Cond. Co., St. Charles, Ill.
"	17	" Milk. . .	28768	Leonard & Harris, Medicine Hat	3 "	50	Truro Cond. Milk Co., Truro, N.S.
"	17	" Cream. .	28769	" " . . .	3 "	50	Bordens Cond. Milk Co., Ingersoll, Ont.
"	29	" Milk. . .	28770	Revillon Bros., Edmonton. . . .	3 "	50	Truro Cond. Milk Co., Truro, N.S.
"	29	" Cream. .	28771	" " . . .	3 "	50	St. Charles Cond. Co., St. Charles, Ill.
"	29	" Milk. . .	28772	The Acme Co., Ltd., Edmonton.	3 "	50	Truro Cond. Milk Co., Truro, N.S.
"	29	" " . . .	28773	" " . . .	3 "	50	Borden Cond. Milk Co., N.Y.
"	29	" Cream. .	28774	" " . . .	3 "	50	St. Charles Cond. Co., St. Charles, Ill.
"	29	Canned milk . . .	28775	A. McDonald, Edmonton.	3 tins.	50	Charlottetown Milk Co., Ltd., P.E.I.
"	29	Canned cream .	28776	"	3 "	50	Borden Cond. Milk Co., Ltd., New York, U.S.A.
"	29	Canned milk . . .	28777	"	3 "	50	St. Charles Cond. Co., Ltd., St. Charles, Ill.

SESSIONAL PAPER No. 14
AT THE LABORATORY OF THE INLAND REVENUE DEPARTMENT—Continued.

Inspector's Report.	Name of Brand.	RESULTS OF ANALYSIS.							Remarks.
		Specific grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500 c. cs. warm. water.	
			p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	

A. C. LARIVIERE, INSPECTOR—Continued.

.....	Oak.. ..	1·3037	29·43	70·57	.....	8·75	.....	52·00	
.....	Nestles.	1·3166	30·48	69·52	.....	8·38	.....	49·62	
Prepared at Ingersoll, Ont.	Gold Seal.....	1·3080	30·90	69·10	.....	7·20	.....	51·47	
.....	Reindeer..	1·3192	27·60	72·40	...	8·40	.....	54·20	
.....	Good Luck. ...	1·3080	29·73	70·27	.....	7·65	.....	53·20	
.....	Peerless	1·0758	72·54	27·46	1·62	6·35	10·26	.....
...	Export	1·3245	29·73	70·27	.....	8·25	.....	50·07	
.....	"	1·3184	30·88	69·12	.....	7·70	.....	50·57	
.....	Peerless	1·0782	71·48	27·46	1·62	6·35	10·26	.....
.....	Oak	1·3105	28·16	71·84	.....	8·00	...	54·05	
Prepared at Ingersoll, Ont.	Gold Seal.....	1·3210	28·95	71·05	...	7·35	.....	51·35	
.....	Jersey..	1·070	71·30	28·70	1·49	8·59	11·15	.....

R. W. FLETCHER, INSPECTOR.

.....	Reindeer.	1·3166	28·36	71·64	8·30	51·04	
.....	St. Charles	1·072	74·90	25·10	1·08	6·64	9·92	.....
.....	Reindeer.	1·3072	28·04	71·96	.....	8·70	.....	54·10	
.....	Peerless	1·0741	72·76	27·23	1·50	6·65	10·61	.....
.....	Reindeer.	1·3166	27·36	72·64	.....	8·58	.....	55·10	
.....	St. Charles. ...	1·070	74·78	25·23	1·15	6·95	9·34	.....
.....	Reindeer.	1·3072	26·84	73·06	...	8·90	.....	55·10	
.....	Gold Seal.....	1·3097	29·65	70·35	.....	7·60	...	51·80	
.....	St. Charles.	1·073	74·63	25·37	1·30	6·23	10·26	.....
.....	Oak.....	1·3080	29·30	70·70	8·57	52·87	
.....	Peerless	1·067	74·38	25·63	1·45	6·40	10·13	...	
.....	Silver Cow	1·3023	31·00	69·00	7·45	52·05	

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TABLE I.—RECORD OF FOOD SAMPLES OF CANNED MILK AND CREAM ANALYZED

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF CALGARY—*Con.*—R. W

Aug. 29	"	...	28778 A. McDonald, Edmonton	3 "	50	Truro Cond. Milk Co., Truro, N.S.
" 29	"	...	28779 "	3 "	50	Borden's Cond. Milk Co., Ltd., New York.
" 29	"	...	28780 R. McKenzie & Co., Edmonton .	3 "	50	" " ..

DISTRICT OF BRITISH COLUMBIA—

Aug. 1	Canned milk	32162	West End Grocery, New Westminster, B.C.	3 tins.	40	Borden's Cond. Milk Co., Ingersoll, Ont.
" 1	"	...	32163 C. S. Hoffard, New Westminster, B.C.	3 "	40	Truro Cond. Milk Co., Ltd., Truro, N.S.
" 2	"	...	32164 J. Wells & Co., Pender St., Vancouver.	3 "	30	Charlottetown Cond. Milk Co., Ltd., Charlottetown, P.E.I.
" 15	"	...	32165 L. Rubinowitz, Steveston, B.C..	3 "	45	Canada Milk Cond. Co., Antigonish, N.S.
" 15	"	...	32166 Marshall Smith, Ladner, B.C ...	3 "	40	The Dahl Milk Co., Norway.
" 16	"	...	32167 Currie & McWilliams, Westham Island, Fraser River.	3 "	45	Borden's Cond. Milk Co., Ingersoll, Ont.
" 16	"	...	32168 Paul Swanson, B.N.A. Cannery, Westham Island, Fraser River.	3 "	45	Truro Cond. Milk Co., Ltd., Truro., N.S.
" 16	"	...	32169 B.C. Packers Assoc., Canning, Canoe Pass, Fraser River.	3 "	45	Canada Milk Cond. Co., Antigonish, N.S.
" 17	"	...	32170 Kyle & Son, Granville St., Vancouver, B.C.	3 "	40	Charlottetown Cond. Milk Co., Ltd., Charlottetown, P.E.I.
" 17	"	...	32171 S. F. McCready, Granville St., Vancouver, B.C.	3 "	45	Borden's Cond. Milk Co., Ingersoll, Ont.
" 1	Canned cream...	32172	West End Grocery, New Westminster, B.C.	3 "	45	Pacific Coast Cond. Milk Co., Seattle, Wash.
" 1	"	...	32173 C. E. Hoffard, New Westminster, B.C.	3 "	45	Truro Cond. Milk Co., Truro, N.S.
" 15	"	...	32174 E. Hunt, Steveston, B.C.....	3 "	40	St. Charles Cond. Co., Ingersoll, Ont.
" 19	"	..	32175 Deal's Grocery, Cordova St., Vancouver.	3 "	30	Charlottetown Cond. Milk Co., Ltd., Charlottetown, P.E.I.
" 19	Canned milk	32176	Webster Bros., Granville St., Vancouver.	3 "	30	Truro Cond. Milk Co., Ltd., Truro, N.S.

SESSIONAL PAPER No. 14

AT THE LABORATORY OF THE INLAND REVENUE DEPARTMENT—Continued.

Inspector's Report.	Name of Brand.	RESULT OF ANALYSIS.							Remarks.
		Specific grav- ity at 15° C.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500 c. cs. warm water.	
			p. c.	p. c.	p. c.	p. c.	p. c.		

FLETCHER, INSPECTOR—Continued.

.....	Reindeer.....	1·3236	26·16	73·84	.....	8·94	.....	55·82	
... ..	Gold Seal.....	1·3080	31·28	68·72	.....	7·25	.. .	51·47	
.....	{ Gold Seal.....	1·3166	30·25	69·75	.....	7·35	....	.....
.....		Peerless	1·0750	74·17	25·83	1·54	6·93	10·40	.....

R. B. PARKINSON, INSPECTOR.

Gold Seal Brand, N J	Gold Seal.	1·3072	29·98	70·02	.....	7·50	.....	51·97	
L + Reindeer Brand, 2719...	Reindeer.... ..	1·3166	27·6	72·32	.....	8·52	.....	54·92	
Empire Brand, 785.....	Empire.....	1·3070	29·18	70·82	....	8·55	.....	52·05	
Pheasant Brand.....	Pheasant	1·3218	30·84	69·16	1·86	5·32	8·14	.....	Casein, &c., 8·24. Cane sugar by diff., 45·60.
No. on tin T 832.....	Dahl's.....	1·0325	88·34	11·66	0·70	2·50	6·77	.....
Gold Seal Brand. N J	Gold Seal.....	1·3105	30·05	69·95	.....	7·25	.....	48·70	
O + Reindeer Brand, 2722...	Reindeer.....	1·3236	26·82	73·18	.....	8·60	.....	55·62	
Pheasant Brand.....	Pheasant.....	1·3131	32·58	67·42	1·86	4·87	7·73	.....	Casein, &c., 8·34. Cane sugar by diff., 44·62.
Oak Brand, 63.....	Oak.....	1·2978	30·65	69·35	.....	8·20	....	47·30	
Eagle Brand. N E A +	Eagle	1·3029	31·95	68·05	....	7·57	.....	50·25	
Carnation Brand, 763 5.	Carnation	1·0650	75·05	24·95	1·20	6·93	10·13	.....
Jersey Brand, 1685	Jersey	1·083	69·66	30·34	1·22	7·92	10·81	.....
St. Charles Brand. S V	St. Charles.....	1·071	72·04	27·96	1·35	7·48	10·47	.....
L L + Victor Brand, 452	Victor.....	1·079	70·25	29·75	1·75	7·90	10·95	....
Clover Brand, 2018	Clover.....	1·3114	28·45	71·55	.....	8·40	....	52·20	

APPENDIX K.

BULLETIN No. 145—STRAINED HONEY

OTTAWA, January 13, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to enclose you a Report on 253 samples of so-called *Strained Honey* collected throughout the Dominion in April and May, 1907.

The following synoptical Table gives particulars of collection, and a classification based upon the results of analysis :—

Inspectoral District.	GENUINE.		Doubtful.	Apparently adulterated.	Sold as Compound.	Total.
	Normal.	High Water Content.				
Nova Scotia.....	12	8	0	0	0	20
Prince Edward Island.....	5	5	0	3	0	13
New Brunswick.....	17	0	3	0	0	20
Quebec.....	17	0	1	2	0	20
St. Hyacinthe.....	14	5	0	0	1	20
Montreal.....	13	1	0	1	5	20
Ottawa.....	10	2	0	*1	7	20
Kingston.....	20	0	0	0	0	20
Toronto.....	17	1	0	2	0	20
London.....	17	1	0	2	0	20
Manitoba.....	14	2	0	3	1	20
Calgary.....	14	5	0	1	0	20
British Columbia.....	18	1	0	1	0	20
	188	31	4	16	14	253

All other necessary information, of a technical kind, will be found in the accompanying Memorandum.

The results of analysis are presented in the form of two Tables. Table I gives information regarding the source and general character of the samples, as well as the results of a preliminary analysis. Table II gives more detailed analytical work, performed upon samples which appeared doubtful, or unsatisfactory, on preliminary testing.

A further collection of Honey has been ordered, in consequence of a resolution of the Middlesex Beekeepers' Association. The work of analysis is already in progress, and a report will be made at the earliest possible date.

I beg to recommend publication of this Report, as Bulletin No. 145.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

* The strip of paper, answering the purpose of a label, is so badly mutilated in this sample, as to make it possible that the word "Compound" in small letters, may have been originally on the package, as I find it on some very similar packages.

SESSIONAL PAPER No. 14

MEMORANDUM.

Honey is, in its nature, of somewhat variable character; being influenced by the special plants from which it is gathered; by the presence of "honey-dew" (1); by accessibility to the bees of maple or other sweet sap; by the weather, and other causes.

In order to define Honey, it becomes necessary to study the extent of this variability.

For Canada, no legal definition of Honey exists. The following definition was made legal for the United States on the 26 June, 1906:—"Honey is the nectar, and saccharine exudations of plants, gathered, modified and stored in the comb by honey bees (*Apis Mellifica* and *Apis Dorsata*); is laevorotatory, contains not more than twenty-five (25) per cent. of water, not more than twenty-five hundredths (0.25) per cent of ash, and not more than eight (8) per cent. of sucrose."

With regard to this definition it may be said that occasional samples of genuine honey have been found to give a right hand rotation. The number expressing such rotation is always very small; and the samples in question are of such rare occurrence as to be practically negligible. The fact, however, that they may occur, makes it impossible to charge adulteration against a producer having such samples in his possession. It need not, however, prevent dextrorotatory samples from being described as *below standard*: or even, as being "*non-honey*" under the Act.

The inspection of 183 samples in 1897, showed 47 to contain above 25 per cent. of water. (2) Of this number 7 were adulterated or doubtful on other accounts; leaving 40 (= 23 per cent. of those classed as apparently genuine) with above 25 per cent water. But as explained by the Chief Analyst, "the analysts did not follow a uniform process" in the estimation of water.

The inspection of 99 samples in 1903, showed 8 samples to contain above 25 per cent water, of which number 6 were adulterated or doubtful, on other grounds. This leaves 2 samples (= $2\frac{1}{2}$ per cent of the number classed as apparently genuine) to contain above 25 per cent. water.

The inspection of 54 samples, in 1906, shewed 5 to contain above 25 per cent. water. Of this number, 2 are otherwise adulterated; leaving 3 samples (= 7 per cent. of those classed as apparently genuine) to contain above 25 per cent. water.

The inspection of 253 samples, now reported, shows 49 samples with 25 per cent. or more of water. Of this number, eleven (11) are sold as "compounds," and 7 are classed as adulterated or doubtful, on independent grounds. This leaves 31 samples (= 14 per cent. of the number classed as presumably genuine) to contain 25 per cent of water, or more than this. The highest amount of water found in any of these samples is 31.4 per cent. It is noteworthy that a sample of guaranteed honey, supplied by Mr. R. F. Holterman of Brantford, Ont., in 1897 contained 27.1 per cent. of water.

See Bull. No. 47).

The ash of honey is due almost entirely to the accidental occurrence of dust, which sticks to the nectar, or other saccharine fluid, gathered by the bees. It is usually a mere trace; but exceptional instances are on record, when it has reached 0.3 of one per cent.

Many samples are recorded in Bulletin No. 47, which give a higher ash than this; but as every test indicated their genuineness, the high ash can only be interpreted as due to carelessness in handling the article, with consequent access of dust. The sub-

(1) Honey-dew is a sweet exudation which appears on the leaves of some plants, and especially of conifers, when stung by an aphid.

(2) Nearly all genuine samples of honey approximate 20 per cent. of water; and the number of samples falling below 18 per cent. or above 22 per cent. of water, is small indeed. This constancy of moisture content is due to the fact that bees find it impossible to deal with the substance if too dry or too wet. The definition quoted above, is amply liberal so far as water content of honey is concerned.

stances employed to adulterate honey are, like honey itself, characterized by a very low ash content. Owing to the valuelessness of this determination for purposes of detecting adulteration, I have not considered it necessary to carry out the test on the present collection.

Very few articles of food have been more extensively adulterated than honey; and it is important to examine how far the above definition of (U.S.) legal honey, enables surrogate samples to be detected.

Bees naturally gather the raw material for honey production at the nearest point; and this has been taken advantage of by bee-keepers. Sugar, syrup and other foods, are very properly fed to bees, in order to tide over periods of scarcity; but the feeding of syrup to bees to enable them to fill their combs with honey for the market, is another matter. Even when bees are fed exclusively on cane sugar (sucrose), the honey which they store up, consists chiefly of invert sugar, the organization of the insect effecting the change. But notable amounts of the cane sugar so fed, escape inversion; and as much as 30 per cent of the whole has been found, as unchanged sucrose, in the resultant honey. When bees have access to the normal, raw-material for honey making, it is well established that the honey will contain not more than from traces, to 10 per cent of cane sugar (sucrose). In the event of coniferous trees (pines &c.) being largely accessible, the honey may contain slightly higher amounts of cane sugar; but even in such case, 15 or 16 per cent of sucrose is a maximum amount. The Swiss Agricultural Chemists have fixed the maximum at 16 per cent. In northern climes, where the pine and other coniferous trees abound, it may be safer to fix a somewhat higher maximum for sucrose than 8 per cent as established by the United States standard already quoted.

I have, for purposes of this Bulletin, adopted 16 per cent sucrose.

Glucose (Corn syrup) is a frequent adulterant of *extracted* or *strained* honey, i.e. honey which has been separated from the comb. Such surrogate honey always shows a marked right-hand rotation; and, by this means, (and others) is readily detected.

Cane sugar syrup is less often employed, as a honey substitute,, partly because of its higher cost, and partly because of its ready detection, if employed in profitable amounts. There can, however, be no doubt that cane sugar syrup is in use, as an adulterant to honey. One of the samples now reported (See No. 25812) contains an explicit statement of the fact, that it consists of "*Honey and Sugar Syrup*." This sample gives a reading $+17.8^{\circ}$. The addition of cane syrup as already remarked, to the finished product, is not difficult of detection. This becomes quite otherwise when it is fed to the bees and subjected to the influence of the organism of the bee itself. There is a strong presumption against the purity of any honey sample which contains 10 per cent or more of cane sugar; but owing to circumstances already described, I consider it advisable, for the present, to give the benefit of any doubt, to the producer, and to permit samples, up to 16 per cent of cane sugar, to pass as "presumably genuine," in the absence of other evidence against them.

When cane sugar in solution is inverted (as by an acid) the resultant "*invert sugar*" is practically identical with honey, so far as the sugar content of the latter is concerned. Particulars as to the use of invert sugar as a honey substitute, or adulterant, will be found in the introduction to Bull. No. 90.

SESSIONAL PAPER No. 14

TABLE II.—SPECIAL EXAMINATION OF CERTAIN HONEY SAMPLES.

No.	CLERGET.			Cane Sugar.	FEHLING WORK REDUCING SUGAR.			Cane Sugar.	Opinion of the Chief Analyst.
	Direct.	Invert.	Diffce.		Before Immer- sion.	After Immer- sion.	Diffce.		
47	- 12.2	-13.6	1.40	1.04	68.44	70.19	1.75	1.66	Doubtful. Sold as mixture. Adulterated. " "
57	- 13.0	-18.9	5.9	4.40	73.88	77.39	3.51	3.33	
24391	+ 2.3	-19.36	21.66	16.20	59.70	76.22	16.52	15.69	
25812	+ 17.4	-22.88	40.28	30.06	49.97	83.99	34.02	32.31	
25827	+ 15.0	-24.2	39.2	29.25	46.08	79.52	33.44	31.77	
25836	+ 14.0	-22.33	36.33	27.11	47.63	79.13	31.50	29.92	
25838	+ 19.2	-23.1	42.30	31.56	44.13	77.58	33.45	31.77	
25845	- 15.2	-22.0	66.80	5.07	71.26	74.66	3.40	3.23	
26186	+ 3.2	+17.82	14.62	15.70	65.04	83.41	18.37	17.45	
26204	+ 22.5	-20.35	42.85	32.00	47.73	82.05	34.32	32.60	
26241	+ 21.4	+11.00	10.40	7.70	62.41	70.19	7.78	7.40	Doubtful.
27322	- 11.5	-17.6	6.10	4.55	64.84	70.19	5.35	5.08	Adulterated. " Doubtful. " " " " " " " "
27326	- 11.8	-17.6	5.80	4.32	65.81	73.3	7.49	7.12	
27331	- 10.0	-14.0	4.00	2.98	67.66	70.88	2.92	2.77	
27335	- 2.9	-17.6	14.70	10.95	61.25	73.88	12.63	11.98	
27337	- 15.0	-18.7	3.70	2.70	66.88	70.19	3.31	3.14	
27340	- 3.2	- 8.8	5.60	4.18	62.60	64.75	2.15	2.04	
28721	- 18.0	-22.0	4.00	2.98	69.02	73.10	4.08	3.87	
28726	- 2.7	-20.9	18.20	17.61	61.05	77.38	16.33	15.50	
28737	- 14.8	-20.9	6.10	4.55	75.05	78.16	3.11	2.95	
28738	- 10.6	-15.8	5.20	3.88	71.16	76.22	5.06	4.80	
28740	- 17.0	-22.0	5.00	3.73	68.73	71.35	2.62	2.49	Doubtful. Presumably gen- uine. Adulterated. " " " " " " " "
29512	+ 13.0	+ 3.08	9.92	7.40	66.50	74.27	7.77	7.38	
29514	+ 4.4	- 2.75	7.15	5.33	68.54	71.94	3.40	3.23	
30352	+ 9.3	-17.05	26.35	19.66	55.90	79.33	23.43	22.25	
30360	+ 18.8	-21.12	39.92	29.79	47.83	79.91	32.08	30.47	
31102	- 14.1	-16.9	2.80	1.86	65.81	67.66	1.85	1.75	
31103	- 5.1	-15.4	10.30	7.68	70.48	77.19	6.71	6.37	
31104	- 2.5	-17.2	14.70	10.97	61.25	72.91	11.66	11.07	
31106	- 12.1	-16.5	4.40	3.28	68.44	72.91	4.47	4.24	
31108	- 7.1	-16.0	8.90	6.64	70.77	77.03	6.26	5.95	
31116	+ 48.6	+45.43	3.17	2.36	62.90	66.50	3.60	3.42	Adulterated. " " " " " " " " " "
31117	+ 41.9	+37.18	4.72	3.52	61.92	65.33	3.41	3.23	
31118	+ 78.0	+58.96	19.04	14.20	45.88	61.63	15.75	14.96	
31687	+ 46.5	+34.1	12.40	9.25	60.76	68.83	8.07	7.66	
32036	- 18.2	-22.5	4.30	3.21	67.95	73.69	5.74	5.45	
32054	+ 86.5	+75.9	10.60	7.90	53.76	61.83	8.07	7.66	
32203	+114.0	+92.4	21.60	16.12	38.49	54.63	16.14	15.33	
32207	+ 96.6	+94.6	2.00	1.49	52.20	53.47	1.27	1.20	
32208	+ 95.0	+90.75	4.25	3.17	54.54	58.13	3.59	3.41	
32214	- 15.0	-18.7	3.70	2.76	71.65	73.30	1.65	1.57	Adulterated. " " "
33206	+ 13.5	-17.38	30.88	23.04	54.34	78.56	24.22	23.00	
33208	+ 20.0	-18.7	38.70	28.88	48.61	78.94	30.33	28.81	
33220	- 13.0	-19.5	6.50	4.85	76.41	79.72	3.31	3.14	

TABLE I—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907						

DISTRICT OF NOVA SCOTIA—

April 18	Honey.. . . .	27321	Larder, Hubley & Co., Halifax.	3 bot..	30	Chas. Piers, Halifax.....
"	"	27322	Brown Bros. & Co., Halifax...	" ..	45	Nat. Drug and Chem. Co., Halifax, N.S.
"	"	27323	F. J. Clork, Halifax	" ..	60	Leonard Hill, Port Williams, N.S..
"	"	27324	J. A. Leaman & Co., Halifax..	1 jar...	25	" "
April 19	"	27325	H. A. Taylor, Halifax	18 oz...	35	Fawcett Honey Co., Mem- ramcook, N.B.
"	"	27326	E. S. Blackie, Halifax ...	" ...	35	Nat. Drug and Chem. Co., Halifax.
"	"	27327	G. A. Burdige, Halifax.....	16 oz....	25	Fawcett Honey Co., Mem- ramcook, N.B.
"	"	27328	W. E. Crowe & Co., Halifax...	2 bot..	40	" "
"	"	27329	C. E. Choat & Co., Halifax....	3 " ..	60	Leonard Hill, Port Williams, N.S.
April 23	"	27330	Leonard Hill, Port Williams, N.S.	16 oz...	25	Vendor.
" 24	"	27331	Murphy & DeMont, Windsor, N.S.	1 pt....	50	John Porter, Lochartville, N.S.
"	"	27332	H. Wilson, Windsor, N.S.....	1 lb....	25	Nat. Drug and Chem. Co., Halifax.
May 3	"	27335	P. B. Price & Co., Parrsboro, N.S.	½ pt....	20	T. B. Baker, St. John, N.B.
"	"	27336	W. D. McKenzie, Parrsboro, N.S.	3 bot..	45	Nat. Drug & Chem. Co., Halifax, N.S.
"	"	27337	Leo Gillespie, Parrsboro....	" ..	45	" "
May 7	"	27338	E. M. Walker, Dartmouth, N.S.	2 " ..	50	Fawcett Honey Co., Mem- ramcook, N.B.
"	"	27339	Geo. Orman, Dartmouth, N.S.	" " ..	30	F. W. Fearman, Hamilton, Ont.
"	"	27340	Nat. Drug & Chemical Co., Halifax	3 " ..	30	Unknown.
"	"	27364	Jas. Hogan, Halifax.	2 " ..	40	Leonard Hill, Port Williams, N.S.
"	"	27365	W. A. Adams, Halifax.	1 jug..	40	B. C. Greeman, Toronto, Ont.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspectors' Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct Read- ing of Saccha- ri-meter.	Water loss on drying at 70° C.	Physical Characteristics.	

R. J. WAUGH, INSPECTOR.

Labeled Pure Honey.....	- 14·30	22·30	Yellow, clear.....	Genuine.
Labeled Pure White Clover Honey.	- 11·8	25·90	Brown, clear, tastes of buckwheat.	" water content high.
.....	- 17·00	20·60	Yellow, slightly crystal-ized.	"
Warranted Pure.....	- 13·10	20·50	Dark yellow, clear.....	"
.....	- 13·70	21·25	Light brown, crystalized throughout.	"
.....	- 11·90	27·10	Dark yellow, clear.....	" water content high.
.....	- 15·80	22·40	Dark yellow, crystalized throughout.	"
Labele Pure Honey... ..	- 12·70	22·10	Dark yellow, clear.....	"
Warranted Pure Honey...	- 11·70	21·40	Yellow, slightly crystal-ized.	"
Pure Buckwheatand Clover Honey.	- 14·70	20·30	Dark yellow, slightly crystalized.	"
.....	- 10·00	25·50	Brown, clear, slight taste of buckwheat.	" water content high.
.....	- 11·60	26·00	Brown, clear.....	" "
Labeled PureWhite Clover.	- 3·50	25·70	Brown, clear.....	" "
" "	- 3·00	24·40	Yellow, crystalized.....	"
" "	- 15·5	28·10	Brown, clear.....	" water content high.
Warranted Pure Honey...	- 14·90	22·50	Yellow, crystalized throughout.	"
White Clover Honey.....	- 15·00	26·70	Yellow, clear.....	" water content high.
.....	- 2·40	31·40	Yellow, clear.....	" "
Labeled Pure Honey.....	- 8·20	22·90	Yellow, clear.....	"
.....	- 17·20	22·80	Pale yellow, partly crys-talized.	"

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						
DISTRICT OF PRINCE EDWARD						
April 19	Honey.....	31101	Johnson & Johnson, Charlotte-town.	3 bot...	90	Lyman Sons & Co., Mont-real, P.Q.
" 19	"	31102	Geo. E. Hughes, Charlottetown.	3 " ...	45	Nat. Drug & Chem. Co., Ltd., Canada.
" 19	"	31103	C. D. Rankin, Charlottetown..	3 " ...	75	John Newson, Charlotte-town.
" 19	"	31104	E. Keir, Kensington.....	3 " ...	75	Dr. Keir, Malpeque, P.E.I..
" 20	"	31105	Jas. McDonald, Summerside ..	3 " ...	45	E. H. Stewart, Niagara Falls.
" 20	"	31106	A. W. P. Gourlie, Summerside.	3 " ...	45	Can. Drug Co., Ltd., St. John, N.B.
" 20	"	31107	P. N. Enman, Summerside....	3 " ...	75	Fawcett Honey Co., Ltd., Memramcook, N.B.
" 20	"	31108	John Knight, Georgetown.....	3 " ...	75	Simpson Bros., Halifax.....
" 20	"	31109	A. McLean, Georgetown.....	3 " ...	54	Upton
" 20	"	31110	W. A. Pool, Lower Montague.	3 " ...	45	Hattie & Mylius, Halifax....
" 25	"	31116	Joseph McDonald, Cardigan...	3 " ...	60	Not known.....
May 1	"	32117	Mathew and McLean, Souris..	3 " ...	64	Dearborn & Co., St. John, N.B.
" 1	"	31118	Sterns & Son, Souris	3 " ...	54	L. Chaput Fils & Co., Mont-real.
DISTRICT OF NEW BRUNSWICK—						
April 12	Honey 'Bees'	24355	Magee & Geldart, 30 Johnston St., St. John, N.B.	3 jars...	45	Magee & Geldart, Crouch-ville, St. John Co., N.B.
" 12	"	24356	Geo. S. Wetmore, Agent, Stall No. 1, City Market, St. John, N.B.	3 " ..	60	Miles E. Vanwart, Kings Co., N.B.
" 15	"	24357	Walter H. Bell, 92 King St., St. John, N.B.	3 " ..	75	Leonard A. Hill, Port Wil-liams, N.S.
" 15	"	24358	M. E. Grass, 16 Germani St., St. John, N.B.	3 " ..	60	Fawcett Honey Co., Ltd., Memramcook, N.B.
" 24	"	24386	S. L. Stockton, Petticodiac, N.B.	3 " ..	54	E. L. Colpitts & Co., Petti-codiac, N.B.
" 24	"	24387	E. L. Colpitts, Petticodiac, N.B.	3 " ..	60	Vendor
" 26	"	24389	Miller Bros., Newcastle, N. Co., N.B.	3 " ..	60	Fawcett Honey Co., Ltd., Memramcook, N.B.
" 26	"	24390	Geo. Stables, Public Square, Newcastle, N.B.	3 " ..	75	Jas. McLaggan, Covered Bridge, N.B.
" 29	"	24391	A. Normand Les Brisay, St. George St., Bathurst, N.B.	3 " ..	45	The Canadian Drug Co., Ltd., St. John, N.B.
" 30	"	24384	Geo. St. Ogne, Water St., Campbellton, N.B.	3 " ..	75	Leonard A. Hill, Port Wil-liams, N.S.
" 25	"	24388	Geo. A. Robertson, Main St., Moncton, N.B.	3 " ..	60	Fawcett Honey Co., Ltd., Memramcook, N.B.
" 23	"	24385	W. E. McKay & Co., Main St., Sussex, N.B.	3 tumb- lers.	54	Farmers at Comhill, N.B....

SESSIONAL PAPER No. 14
INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULT OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct reading of Saccharimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

ISLAND—T. MOORE, INSPECTOR.

Clarafied especially for Lyman Sons & Co.	- 14·60	22·00	Pale yellow, Crystallized throughout.	Genuine.
.....	- 10·80	29·70	Brown, clear.....	" Water content high.
... .	- 5·60	25·80	Pale yellow, clear.....	" "
.....	- 2·60	27·60	Yellow, clear.....	" "
... ..	- 17·10	24·60	White, clear	"
.....	- 13·80	26·00	Yellow, partly crystal- lized.	" "
.... .	- 14·5	21·20	Yellow, partly crystal- lized.	"
Clover honey	- 11·50	26·20	Yellow, almost all crys- tallized.	" "
.... .	- 10·80	20·80	Yellow, almost all crys- tallized.	"
.....	- 6·00	24·20	Brown, almost all crys- tallized.	"
Pure clover honey,.....	+ 48·0	24·80	Pale yellow, erystallized throughout.	Contains glucose. Adulterated.
.....	+ 40·9	22·20	.....	" "
Clarified honey	+ 77·3	20·60	... .	" "

J. C. FERGUSON, INSPECTOR.

Label—Extracted Honey..	- 13·30	23·00	Yellow, clear	Genuine.
No label on bottle	- 10·60	20·80	Dark brown, clear.....	"
Warranted Pure Honey...	- 12·50	18·00	Brown, clear.....	"
Pure Honey	- 12·70	20·60	Dark yellow, clear	"
"	- 16·80	19·80	Dark brown, muddy.....	"
Labeled Pure Honey	- 14·30	19·60	Partly crystallized, yellow.	"
Pure Honey	- 7·40	19·60	Slightly crystallized, yellow.	"
Pure 'Bee's Honey'	- 7·20	24·40	Slightly crystallized, brown.	"
Pure White Clover Honey (Label).	+ 3·70	27·00	Light brown, clear.....	Doubtful; water content high Probably contains cane sugar.
Warranted Pure Honey (Label).	- 11·50	19·80	Crystallized throughout, yellow.	Genuine.
Pure Honey	- 9·30	20·00	Yellow, clear.....	"
Buckwheat Honey	- 16·00	20·40	Dark brown, clear.....	"

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF NEW BRUNSWICK.—

May	9	"	29511 Johnston & Johnston, King St., St. Stephen, N.B.	3 bottles	60	Geo. F. Beach, Honeydale, N.B.
"	9	"	29512 Geo. F. Beach, Meadows, N.B.	3 "	60	Vendors
"	11	"	29513 W. R. Logan, Queen St., Fredericton, N.B.	3 jars...	66	Horace Pugh, Marysville, N.B.
"	11	"	29514 Hatt, Morrison Co., Ltd., Fredericton, N.B.	3 " ..	75	Not known
"	11	"	29515 The '2' Bakers, Ltd., Queen St., Fredericton, N.B.	3 " ..	60	James McLaggan, Covered Bridge, N.B.
"	13	"	29516 J. W. Dalling, Woodstock, N.B.	3 tumblers.	45	Ernest Bell, Hartland, N.B.
"	13	"	29517 H. G. Noble, Main St., Woodstock, N.B.	3 " ..	54	J. A. Carpenter, Bloomfield, N.B.
"	14	"	29518 Garden Bros., Main St., Woodstock, N.B.	3 bottles	30	Sterling Peabody, Carleton, N.B.

DISTRICT OF QUEBEC.—

April	3	Honey	26180 Jacques Verret, Charlebourg..	1 lb...	30	Vendor
"	3	"	26181 V. Leguré, Charlebourg.	1½ " ..	20	Exavier Jeroux, Charlebourg
"	3	"	26182 Pierre Verret, St. Ambroise. P.Q.	1 " ..	25	Jacques Verret, Charlebourg
"	3	"	28183 H. Ross & Son, Indian Larrett.	1 " ..	25	" " .
"	3	"	26184 Jules Verrett	1 " ..	25	" " ..
"	3	"	26185 A. Rochette, St. Ambroise ...	3 bots...	45	Nazaire Turcotte, Quebec...
"	3	"	26186 J. Martel, St. Ambroise.	2 glasses	30	F. X. Gauvreaux.
"	3	"	26187 François Reneaud	1 lb...	25	Mad. Godin
"	4	"	26188 Jos. Mercier, Ste. Anne Beaupré.	1 " ..	20	Jos. Mercier, Ste. Anne Beaupré.
"	4	"	26189 Jos. Mercier, Ste. Anne Beaupré.	1 " ..	25	" " ..
"	5	"	26196 J. A. Chabot, 271 St. Joseph..	1 " ..	20	" " ..
"	8	"	26200 Elzear Gagnon, 138 Dorchester.	1 " ..	30	Dr. Ed. Morin.
"	8	"	26202 J. D. Marier, 136 Dorchester..	1 " ..	39	Unknown..
"	8	"	26203 " " ..	1 " ..	39	"
"	8	"	26204 " " ..	1 " ..	30	"
"	19	"	26233 C. P. Lynsay, St. Marie Beauce	3 glasses	75	Vendor
"	19	"	26241 Armias Dupuis, St. Marie Beauce.	1 lb...	30	"
"	22	"	26246 F. X. Paquet, 54 Côte du Palais.	3 glasses	45	Pierre Drolet, Encienne Lorrette.

SESSIONAL PAPER No. 14
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Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct reading of Saccharimeter.	Water loss on drying at 70 C.	Physical Characteristics.	

J. C. FERGUSON, INSPECTEUR.—*Con.*

.....	- 14·80	24·00	Partly crystallized, light brown.	Genuine.
Label—Pure Clover Honey.	+ 15·00	19·80	Brown, clear	Doubtful.
No label on jar... ..	- 1·00	20·00	" "	Genuine.
Thought to be Buckwheat Honey.	+ 5·00	22·40	" "	Presumably genuine.
Label—Pure Bee's Honey..	- 8·80	22·00	" "	Genuine.
No label.....	- 8·70	20·60	Slightly crystallized, yellow.	"
"	- 4·00	21·40	Partly crystallized, yellow.	"
"	- 9·50	20·20	Brown, clear.....	"

E. BELAND, INSPECTOR.

.....	- 2·5	20·40	Pale yellow, clear	Genuine.
.....	- 3·0	20·60	Pale yellow, slightly crystallized.	"
.....	- 5·2	21·60	Pale yellow, slightly crystallized.	"
.....	- 5·0	20·20	Pale yellow, clear.....	"
.....	- 3·0	20·80	Pale yellow, partly crystallized.	"
.....	- 9·5	20·40	Pale yellow, crystallized throughout.	"
.....	+ 3·0	18·80	Pale yellow, clear.....	Adulterated with cane sugar.
.....	-12·0	23·40	Brown, slightly crystallized.	Genuine.
.....	-10·8	23·00	Brown, clear.....	"
.....	-15·7	22·20	Brown, partly crystallized.	"
.....	-11·0	22·80	Brown, partly crystallized.	"
.....	- 2·1	21·80	Pale yellow, slightly crystallized.	"
.....	-15·3	23·20	Brown, clear.....	"
.....	-14·0	22·20	Brown, partly crystallized.	"
.....	+23·4	24·80	Yellow, clear.....	Adulterated with cane sugar.
.....	- 2·5	21·20	Yellow, partly crystallized.	Genuine.
.....	+18·8	23·40	Brown, muddy.....	Doubtful.
.....	- 9·0	23·20	Pale yellow, crystallized throughout.	Genuine.

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collecti.n.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF QUEBEC—

April 22	Honey....	26247	Jos. Savard, 35 St. Jean.....	3 "	60	Dr. Gauvreaux, Charlebourg
" 5	"	26198	Jos. Farlardeau, 268 Roi St....	1 lb...	20	General Hospital.....

DISTRICT OF ST. HYACINTHE.—

April 17	Honey.	41	P. J. Girard, Richmond.....	1 qt...	60	W, E. Lefebvre, St. Antoine, Abbe.
" 17	"	42	E. J. Pearson, Richmond.....	2 jars..	60	H. G. Silver, Danville.....
" 19	"	43	P. E. Beaudoin, Thetford.....	3 glasses	54	W. Brune & Cie, Quebec....
" 19	"	44	Clovis Biron, Thetford....	2 lb...	36	Himself.....
" 19	"	45	Kings Mines Store.	3 jars..	60	Lyman Sons & Co., Montreal
" 23	"	46	Samuel Des Landes, St Liboire	24 oz..	15	Himself.....
" 23	"	47	Ant. Chicome, Acton Vale	1 jar...	60	"
" 23	"	48	Jos. St. Pierre, Acton Vale...	1 "	60	R. F. Laroque, Notre Dame du Bon Conseil.
" 24	"	49	A. C. Gilmour, Waterloo....	2 "	30	A. A. Lapierre, Montreal....
May 1	"	50	A. McLaughlin, Cowansville...	3 "	45	E. J. Bury, Brome, Que....
" 3	"	51	May & Houlahan, Sherbrooke..	3 "	75	C. T. Ross, Sherbrooke.....
" 3	"	52	G. E. Robitaille, Sherbrooke..	3 glasses	45	Not Known.....
" 3	"	53	Biron & Blouin, East Sherbrooke.	3 jars..	45	Jos. Lamoureux & Cie, Montréal.
" 3	"	54	A. L. Dupuis, Coaticook.....	21 ozs..	20	A. O. Cariere, St. Francois du Lac.
" 7	"	55	C. H. Digman, Eastman	3 jars..	60	A. Bowes & Co., Montreal..
" 8	"	56	G. A. Truax, Farnham	25 ozs..	25	Mr. Morin, St. Paul Abbotsford.
" 8	"	57	P. Larochelle, Farnham.....	2 lb. ..	25	A. L. Racine, Emileville....
" 10	"	58	S. N. Fonteneau, Marieville...	2 " ..	24	Mr. Lebrum, St. Dumace....
" 11	"	59	Ed. Viens, St. Thomas d'Aqui-net.	1 jar...	50	Himself.....
" 13	"	60	Jos. Leduce, St. Hyacinthe....	2 lb. ..	25	Oscar Peltier, St. Hyacinthe le Confesseur.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst
	Direct read-ings of Sac-charimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

E. BELAND, INSPECTOR.—*Con.*

.....	− 12·7	17·80	White, crystallized throughout.	Genuine.
.....	− 6·2	21·00	Pale yellow, crystallized throughout.	"

J. C. ROULEAU, INSPECTOR.

No Label ...	− 12·0	22·60	Brown. Muddy.....	Genuine.
"	− 9·0	22·40	Yellow. Crystallized throughout.	"
Pure Virgin Honey.....	− 6·2	20·40	Pale yellow. Crystallized throughout.	"
.....	− 12·3	25·60	Pale yellow. Crystallized throughout.	" Water content high.
Fine New Honey.....	− 12·4	23·20	White. Crystallized throughout.	"
.....	− 10·0	19·80	Brown. Crystallized throughout.	"
..	− 15·0	28·40	Brown. Partly crystallized.	" Water content high.
Pure Honey.....	− 23·5	26·60	Brown. Partly crystallized.	" " " "
White Clover Honey Guaranteed Pure.	− 13·7	23·00	Pale yellow. Partly crystallized.	"
Pure Honey	− 10·0	21·20	Yellow. Crystallized throughout.	"
.....	− 13·9	22·40	Yellow. Clear.....	"
.....	− 15·1	24·00	Brown. Partly crystallized.	"
Marked Compound.....	+ 92·5	27·20	Brown. Partly crystallized.	Sold as compound. Water content high.
Pure Honey.....	− 10·0	22·00	Brown. Crystallized throughout.	Genuine.
Put up by Vendor.....	− 15·0	22·20	Brown. Crystallized throughout.	"
.....	− 16·7	23·60	.....	"
.....	− 16·0	29·60	Pale yellow. Crystallized throughout.	" Water content high.
.....	− 8·3	25·60	.....	" " " "
.....	− 8·9	24·80	.....	"
.....	− 2·0	21·20	Yellow. Crystallized throughout.	"

TABLE I—REOORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF MONTREAL—

April 3	Honey.. .. .	31681	Howe & McIntyre, 91 Youville, Montreal.	3 jars ..	40	Vendor
" 17	"	31682	Leduc et Frere.....	3 pots ..	30	H. Sauve, St. Stanislas
" 22	"	31685	Nap. Morin & Co., Bonsecours Market.	2 lb	20	.....
" 22	"	31686	A. Laurandean, 85 St. Paul St., Montreal.	3 pots ..	30	J. Lamoureux, Montreal...
" 22	"	31687	Jos. Choquette, 486 Lagauche-tière St., Montreal.	2½ lb ...	30	.....
" 22	"	31688	H. Lagace, 252 Amherst St., Montreal.	2½ lb ...	30	Gunn & Langlois, Montreal..
" 22	"	31689	"	2½ lb ...	25	.....
" 23	"	31690	John Hunter & Son, Huntingdon.	1 jar....	45	Not known.....
" 23	"	31691	Jas. Brown, Huntingdon.....	1 " ...	45	Neil O'Hare, O'Neills Corners
" 25	"	31692	Aubin & Co., St. Lawrence Market, Montreal.	3 " ...	38	Not known.....
" 26	"	31693	G. W. Brunet, St. Antoine Market, Montreal.	2 " ...	20	"
" 26	"	31694	W. J. Falle, St. Antoine Market, Montreal.	2 " ...	30	J. McIntosh, Vankleek Hill.
" 26	"	31695	"	2 " ...	30	Not known... ..
May 1	"	31696	E. J. Moineau, 2 Craig St. West, Montreal.	3 " ...	53	"
" 2	"	31697	M. Ethier, Bonsecours Market, Montreal.	1 tin....	60	A. Denault (Farmer).....
" 2	"	31698	L. Beaudoin, 21 Vitre St. W., Montreal.	3 jars...	30	N. Belanger, Montreal.....
" 2	"	31699	T. H. Mallette, 20 Lagauche-tière St. W., Montreal.	1 bot....	30	Not known.
" 2	"	31700	J. A. Desaulners, 1135 St. Lawrence St., Montreal.	3 jars...	36	Fortier & Monnette, Montreal.
April 20	"	31683	A. A. Lapierre, 773 Notre Dame St. East, Montreal.	3 pots ..	25	Vendor
" 20	"	31684	J. A. Perreault, 40 Plessis St., Montreal.	3 " ..	25	Put up by Vendor....

DISTRICT OF OTTAWA—A. E. SANDERSON,

April 15	Honey.....	32376	Bryson, Graham & Co., Sparks St., Ottawa.	3 bottles	60	Not known.....
" 25	"	32201	Philorum Dedine, Embrum, Ont.	3 cans ..	75	S. J. Major, Ottawa....
" 26	"	32202	J. B. Lafrance & Co., Crysler, Ont.	3 jars... 1	20	Robt. McConnell, Cannamore, Montreal.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
Inspector's Report.	Direct Readings of Saccharimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

J. J. COSTIGAN, INSPECTOR.

Labelled "Clover." "This delicious table delicacy is prepared with the choicest clover honey, refined, &c."	+47·2	24·80	Yellow. Clear.....	"Compound" stencilled on bottle.
.....	-18·0	22·00	Brown, partly crystallized. Tastes of buckwheat.	Genuine.
Sold as pure ...	-16·0	21·00	Brown. Thick.....	"
Marked Compound . . .	+96·5	26·00	"	Marked "Compound." Water content high.
.....	+49·1	25·20	Yellow. Clear....	Adulterated with glucose syrup. Water content high.
.....	-12·0	21·80	Pale yellow. Crystallized throughout.	Genuine.
.....	-14·0	20·80	Brown. Partly crystallized.	"
.....	-13·0	22·20	Yellow. Crystallized almost throughout.	"
.....	-12·5	20·20	Brown. Crystallized throughout.	"
.....	-18·0	22·20	Yellow. Partly crystallized.	"
.....	-18·4	20·80	Brown. Thick.....	"
.....	-16·6	23·20	Light brown. Partly crystallized.	"
.....	- 9·8	22·40	Yellow. Crystallized throughout.	"
.....	-15·0	23·60	White. Crystallized almost throughout.	"
Canadian Honey.....	-14·5	23·40	Yellow. Crystallized almost throughout.	"
Compound on label in small type.	+108·0	25·40	Brown. Thick.....	Marked "Compound." Water content high.
.....	- 4·5	19·20	Yellow. Clear.....	Genuine.
.....	-20·0	25·40	Brown. Partly crystallized.	" Water content high.
Labeled Compound. "Red Colt Brand."	+ 5·3	27·80	Brown. Slightly crystallized.	Marked "Compound." Water content high.
Labeled Compound. "Miel Canadian."	+98·7	25·80	Brown. Rather thick...	" "

INSPECTOR. E. BELISLE, GENERAL INSPECTOR.

No label on bottle	- 9·8	19·40	Light brown. Clear....	Genuine.
Sold as pure.....	- 14·0	23·60	Dark brown. Crystallized.	"
"	- 11·2	20·80	Light yellow. Crystallized throughout.	"

TABLE 1.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF OTTAWA—J. E. SANDERSON

April 26	Honey.....	32203	O. Piquette, Cambridge Road, 3 Ont.	" .	45	J. A. Perreault, Montreal...
" 27	"	32204	D. Robillard, Hawkesbury, 3 Ont.	" ..	45	Unknown
" 29	"	32205	C. P. Wright, Aylmer, P.Q ...	3 " ..	60	S. J. Major, Ottawa, Ont ...
" 29	"	32206	F. Souliere, Aylmer, P.Q	3 " ..	30	Jos. Lamoureux & Cie, Mont- real.
" 29	"	32207	N. Mathé, Aylmer, P.Q.....	3 " ..	30	S. J. Major, Ottawa... ..
May 7	"	32208	Therien & Frères, Hull, P.Q... 3	" ..	30	Jos. Lamoureux & Cie, Mont- real.
" 8	"	32209	A. Villeneuve, Gatineau Point, 3 P.Q.	" ..	30	Jos. Lamoureux & Cie, Mont- real.
" 8	"	32210	A. J. Smith, Gatineau Point .. 3	" ..	60	S. S. Major, Ottawa.....
" 29	"	32211	H. A. Layng, Smith's Falls ...	2½ lbs..	30	Jno. Findlay, Smith's Falls .
" 29	"	32212	W. Hyndman, Smith's Falls... 3	jars...	45	Upton's...
June 29	"	32213	Foster Bennett & Co., Ltd., 3 River Desert, P.Q.	lbs....	45	Rev. Father Oblate, Mani- waki.
" 29	"	32214	Anastase Roy, Maniwaki, P.Q. 3	jars...	50	S. J. Major, Ltd., Ottawa...
July 2	"	32215	Jules Faure, Gracefield, P.Q... 3	" ..	54	"
" 3	"	32216	A. Labelle, Hull, P.Q.....	3 glasses	30	Jos. Lamoureux, Montreal..
" 3	"	32217	O. Lemieux, Hull, P.Q.....	3 " .	30	"
" 3	"	32218	P. Daoust & Cie, Hull, P.Q.... 3	" .	30	G. Leduc, Thurso, P.Q.....
" 4	"	32219	F. X. Groulx, King Edward 3 Ave., Ottawa.	" .	30	Jos. Lamoureux & Cie, Mont real.

DISTRICT OF KINGSTON—

April 2	Honey	31078	J. Purdy, Earl St., Kingston..	1½ pts..	45	... .. . . .
"	"	31079	C. S. Litton, Alfred St., Kings- ton.	" ..	"	... .. . . .
"	"	31085	W. A. Smith, Brock St., Kings- ton.	3 lbs...	38	Parkhill, Kingston.....
"	"	31086	J. Cullen, Princess St., Kings- ton.	" ..	"	"
"	"	31087	C. Saunders, Princess St., 1½ Kingston.	lbs...	36	... .. . . .
"	"	31089	Anderson Bros., Princess St., 1½ Kingston.	pts..	45	Bartels, Morven, Ont.....
" 3	"	31094	A. J. McCrodan, Front St., Belleville.	" ..	30	... .. . . .

SESSIONAL PAPER No. 14
INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULT OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct reading of Saccharimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

INSPECTOR. E. BELISLE, GENERAL INSPECTOR.—*Con.*

Sold as pure.....	+114·1	22·40	Brown. Muddy.....	Word "Compound" in small type on label.
"	- 14·0	18·80	Light yellow. Crystallized throughout.	Genuine.
"	- 13·2	19·40	Brown. Partly crystallized.	"
Marked compound in very small characters.	+ 81·7	26·60	Dark brown. Clear....	Marked "Compound." Water content high.
No label, thought to be from Major.	+ 97·8	26·20	"	Adulterated. No visible marking on remnant of a strip of paper surrounding the cover. Water content high.
Marked compound in very small characters.	+ 94·3	26·60	"	Marked "Compound." Water content high.
Marked compound in very small characters.	+ 90·5	26·20	"	" "
Labelled pure honey.....	- 1·0	19·60	Yellow. Crystallized throughout.	Genuine.
Sold as honey from bulk...	- 8·0	22·60	Dark yellow. Slightly crystallized.	"
Labelled pure clarified honey.	- 15·3	18·60	Dark yellow. Crystallized throughout.	"
Sold as pure honey.....	- 5·0	21·60	Yellow. Crystallized throughout.	"
Brown honey	- 17·0	26·40	Dark brown. Thick....	" Water content high.
"	- 14·0	26·60	Dark brown. Clear....	" "
Marked compound on label in small characters.	+ 82·0	25·60	Light brown. Thick....	Marked "Compound." Water content high.
Sold as compound.	+ 96·2	25·00	Brown. Muddy.....	Sold as compound. Water content high.
Sold as pure honey from buckwheat.	- 19·4	24·60	Dark brown. Partly crystallized.	Genuine.
Sold as compound.....	+ 97·5	26·60	Dark brown. Thick	Sold as compound. Water content high.

JAMES HOGAN, INSPECTOR.

.....	-11·80	20·00	Yellow, crystalized throughout.	Genuine.
.....	- 7·00	23·40	Yellow, crystalized throughout.	"
.....	-12·00	23·00	Yellow, crystalized throughout.	"
.....	-13·00	23·00	Yellow, crystalized, throughout.	"
.....	- 8·90	22·40	Yellow, all crystalized...	"
.....	-11·90	23·00	Brown, partly crystalized, tastes of buckwheat,	"
.....	-16·30	23·20	Yellow, crystalized throughout.	"

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Frunisher as given by Vendor.
				Quantity.	Cents.	
1907						

DISTRICT OF KINGSTON.—

April	3	Honey....	32402	G. Pearson, Front St., Belleville	" ..	" ..	.....
"	4	"	32407	W. M. Robson, Kent St., Lindsay.	" ..	38	.....
"	"	" ..	32409	Adams Bros., Kent St., Lindsay.	3 pts...	75	.....
"	"	"	32413	R. L. Campbell, Kent St., Lindsay.	.....	55	.....
"	"	"	32415	White & Gillespie, George St., Peterboro.	1½ pts..	40	.....
"	"	"	32417	Mason & Co., George St., Peterboro.	" ..	30	.....
"	"	"	32422	R. A. Dutton, George St., Peterboro.	" ..	45	Upton ..
"	5	"	32428	H. Burniam, Charlotte St., Peterboro.	" ..	30	.....
"	"	"	32430	J. Heal, Charlotte St., Peterboro.	" ..	"	.....
"	"	"	32432	A. J. Warne, Charlotte St., Peterboro.	" ..	45	.....
"	"	"	32434	J. Sutherland, George St., Peterboro.	" ..	60	White & Co., Toronto.....
"	"	"	32435	J. R. Bell, Hunter St., Peterboro.	" ..	45	Upton ..
"	"	"	32438	W. A. Hamilton, Peterboro...	1½ lbs...	75	W. Anderson, Peterboro....

DISTRICT OF TORONTO.—

May	8	Honey....	33201	W. Eddy, Toronto.....	3 jars...	45	J. J. Fee, Toronto.....
"	8	"	33202	Spencer Smith, Toronto.	3 " ..	30	Rutherford, Marshal & Co., Toronto.
"	8	"	33203	Allen Martindale, Toronto	3 " ..	30	John Callicot, Toronto.....
"	9	"	33204	Bruce & Sanderson, Toronto...	2 pts ...	60	White & Co., Toronto
"	9	"	33205	Oliver Taylor, Toronto.....	3 jars...	39	Rutherford, Marshal & Co., Toronto.
"	10	"	33206	W. Massen, Toronto	3 " ..	30	T. W. Humphrey, Toronto..
"	14	"	33207	W. Scott, Toronto Jct.....	3 " ..	30	White & Co., Toronto.....
"	14	"	33208	M. J. Tobino, Toronto Jct.....	3 " ..	30	Sibbald, Claud, Ont
"	14	"	33209	E. Grainger & Co., Toronto ...	3 " ..	45	E. Grainger & Co., Toronto.
"	14	"	33210	P. J. Crown, Toronto.	2 " ..	30	Warren Bros., Toronto.
"	17	"	33211	C. K. Hewitt, East Toronto...	1 pt....	30	Rutherford, Marshal & Co., Toronto.
"	20	"	33212	W. J. Rykman, Hamilton.....	1 "	35	Merchant at Onida.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct reading of Sacchari- meter.	Water loss on drying at 70° C.	Physical Characteristics.	

JAMES HOGAN, INSPECTOR.—*Con.*

.....	-15·30	21·00	Brown, crystalized throughout.	Genuine.
.....	-12·50	22·20	Yellow, crystalized throughout.	"
.....	-12·20	23·00	Brown, crystalized throughout.	"
.....	-16·60	21·40	Yellow, crystalized throughout.	"
.....	-14·30	22·00	Brown, slightly crystalized.	"
.....	- 8·70	22·80	Yellow, crystalized throughout.	"
.....	-13·20	19·60	Brown, clear.....	"
.....	-12·30	21·80	Brown, very slightly crystalized.	"
.....	-12·60	22·80	Yellow, crystalized throughout.	"
.....	-16·00	22·20	Brown, crystalized throughout, buckwheat taste.	"
.....	- 5·00	20·60	Yellow, crystalized throughout.	"
.....	-13·70	22·00	Brown, partly crystalized.	"
.....	-11·86	20·60	Yellow, crystalized throughout.	"

H. J. DAGER, INSPECTOR.

Labeled pure.....	-15·3	24·70	Dark yellow. Crystalized throughout.	Genuine.
"	-16·0	23·40	" " ..	"
"	-17·6	24·00	Light yellow. Slightly crystallized.	"
No label. Guaranteed pure.	-16·8	21·80	Yellow. Crystallized throughour.	"
" " ..	-18·0	22·20	Light yellow. Crystalized throughout.	"
"	+10·8	25·40	Yellow. Clear.....	Adulterated with cane suga Water content high.
"	-13·2	22·60	Yellow. Crystallized throughout.	Genuine.
" Pure honey.	+17·8	23·40	Yellow. Clear.....	Adulterated with cane sugar.
Labeled pure. Guaranteed pure.	-16·3	22·20	Yellow. Slightly crystalized.	Genuine.
No label. Bottled by Vendor as pure.	-16·0	24·00	Dark yellow. Clear.....	"
Guaranteed pure.	-11·8	23·00	Yellow. Crystallized almost throughout.	"
Buckwheat Honey... ..	-10·0	23·00	Dark yellow. Crystalized throughout.	"

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						
DISTRICT OF TORONTO.—						
May 20	Honey.....	33213	Battrem & Co., Hamilton.	2 jars...	50	White & Co., Hamilton.....
" 20	"	33214	Bain & Adams, Hamilton.	3 " ..	54	Vendor
" 20	"	33215	W. J. O'Brien, Hamilton.....	1 tin...	25	F. W. Fearman, Hamilton:..
" 21	"	33216	D. Lavrock, Hamilton	2 jars...	40	A farmer near Hamilton....
" 21	"	33217	Jas. Osborn & Son, Hamilton..	2 " ..	40	F. W. Freeman, Hamilton..
" 21	"	33218	A. S. Cain, Dundas.	3 " ..	60	Obtained from a farmer.....
" 21	"	33219	H. F. Powell, Dundas.....	1 lb	12	McPherson, Glasco & Co., Hamilton.
" 21	"	33220	T. R. Martin, Hamilton.....	2 jars...	30	Lucas, Bristol & Steel, Ham- ilton.
DISTRICT OF LONDON—						
April 16	Honey.....	30301	P. J. Dean, Goderich.....	1½ lb..	18	George Harris & Co., Dun- ganon.
" 19	"	30309	Barnsdale Trading Co., Strat- ford.	3 Cups.	36	Warren Bros. & Co., Toronto
" 23	"	30317	Ryan & Russell, Richmond St., London.	3 " ..	45	.....
" 23	" ...	30318	Hugh Malcomson, Chatham...	3 " ..	45	W. A. Crysler, Chatham....
" 25	"	30324	G. B. Lodge, Windsor.....	3 " ..	30	Wall & Guffey, Windsor....
" 26	"	30328	A. McKingly, St. Thomas....	3 " ..	54	R. H. Smith, St. Thomas....
May 1	" ...	30333	Alma Moose, Wingham..	3 " ..	30	Masuret & Co., London.....
" 1	"	30336	W. A. Dulmage, Harrison.....	1 Pt..	25	S. A. Todd, Harrison.....
" 2	"	30339	John Goos, Walkerton.....	3 Cups.	30	J. A. McIntyre.....
" 2	"	30340	H. H. Engle & Co., Hanover..	3 " ..	30	Not known.....
" 3	"	30343	Haleday & Stenson, Chesley...	3 " ..	20	"
" 4	"	30347	White Packing Co., Stratford..	3 " ..	45	"
" 8	" ...	30349	Jackson & Son, Guelph... ..	3 lb..	30	"
" 8	"	30352	Scroggie Browner, Guelph....	3 Cups.	30	John Nowlan & Son, New Town.
" 9	"	30353	Michel & Co., King St., Toron- to.	3 " ..	45	Wm. Couse, Streetsville.....
" 10	"	30356	D. Bell, Church St., Toronto..	3 " ..	30	Rutherford & Marshall, To- ronto.
" 10	"	30358	J. W. Nettecloss, Toronto.....	2 " ..	20	Humphy & Co., Toronto....
" 10	"	30360	A. Probin, 134 King St., Toron- to.	3 " ..	30	H. G. Gebbald, Claud.. . .
" 13	"	30363	Frank Kernick, Alleston	2 lb..	35	Telford Bros., Collingwood..
" 15	"	30369	Rutherford & Marshall, Front St. Toronto.	3 Cups.	25	Not known.....

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct readings of Saccharimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

H. J. DAGER, INSPECLOR—*Con.*

.....	- 12·5	23·60	Yellow. Partly crystallized.	Genuine.
.....	- 12·0	21·40	Yellow. Crystallized throughout.	"
Labeled pure honey.....	- 10·0	24·00	Yellow. Crystallized almost throughout.	"
Extracted from comb by Vendor.	- 9·0	21·80	Yellow. Clear.....	"
Vendor bottled from bulk..	- 10·5	21·40	Light yellow. Slightly crystallized.	"
Bottled by Vendor.....	- 14·3	24·00	Light yellow. Crystallized throughout.	"
.....	- 11·3	21·40	Light yellow. Crystallized throughout.	"
.....	- 14·0	25·00	Yellow. Slightly crystallized.	" Water content high.

T. KIDD, INSPECTOR.

.....	- 16·6	21·00	White. Crystallized throughout.	Genuine.
.....	- 9·8	24·60	Yellow. Partly Crystallized.	"
.....	- 13·8	21·80	Yellow. Clear	"
.....	- 13·0	23·40	" "	"
.....	- 14·4	25·00	" "	" Water content high.
.....	- 14·0	22·80	Yellow. Crystallized throughout.	"
.....	- 15·7	24·80	Yellow. Partly Crystallized.	"
... ..	- 13·7	22·00	Yellow. Partly Crystallized.	"
.....	- 12·6	22·40	Brown. Crystallized throughout.	"
.....	- 10·6	21·20	Yellow. Clear.	"
.....	- 9·4	19·60	Light yellow. Partly crystallized.	"
.....	- 5·4	21·40	Brown. Slightly crystallized.	"
Clover honey	- 13·9	23·40	Yellow. Nearly all crystallized.	"
.. ..	+ 9·3	24·20	Dark Brown. Clear....	Adulterated with cane sugar.
.....	- 13·5	23·00	Yellow. Slightly Crystallized.	Genuine.
.....	- 9·8	22·20	Yellow. Partly Crystallized.	"
.....	- 10·0	23·60	Yellow. Clear.	"
Branded Clover Honey....	+ 17·7	27·00	" "	Adulterated with cane sugar. Water content high.
.....	- 16·4	24·20	Yellow. All Crystallized	Genuine.
Branded pure Honey	- 18·3	23·60	Light yellow. Nearly all Crystallized.	"

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF MANITOBA—

May	16	Honey	25812	Sutherland Bros., Winnipeg . . .	3 lbs. . . .	60	Campbell Bros. & Wilson, Winnipeg.
"	15	"	25826	J. Patterson, Winnipeg	5 " . . .	90	G. E. Saunders, Hornby, Ont.
"	15	"	25827	A. R. Christie, Winnipeg	5 " . . .	85	.....
"	15	"	25828	W. H. Stone & Co., Winnipeg. . .	5 " . . .	75	Whellams, Kildonan, Man..
"	16	"	25829	Bragg Bros., Winnipeg	3 " . . .	75	Foley, Lock & Larsen, Win- nipeg.
"	16	"	25830	Laurie Bros., Winnipeg	5 " . . .	75	McPherson Fruit Co., Win- nipeg.
"	17	"	25831	S. Elliott & Co., Winnipeg	3 " . . .	75	White Star Mfg. Co.
"	17	"	25832	J. R. VanNorman, Winnipeg . . .	3 " . . .	75	.....
"	17	"	25833	D. A. Richie, Winnipeg	5 " . . .	1.00	J. J. Gunn, Gonor, Man. . . .
"	17	"	25834	J. H. McGrath, Winnipeg	3 " . . .	75	A. A. McDonald, Winnipeg.
"	17	"	25835	G. T. Hoyes, Winnipeg	3 " . . .	75	Foley, Lock & Larsen, Win- nipeg.
"	27	"	25839	T. A. Newman Bros., Portage la Prairie.	3 " . . .	70	E. B. Blaine, Toronto.
"	27	"	25840	C. S. B. Burley, Portage la Prairie.	3 " . . .	50	Not known
"	27	"	25841	J. O'Reilly, Portage la Prairie. .	3 " . . .	70	E. D. Smith, Winona, Ont..
"	27	"	25842	J. & E. Brown, Portage la Prairie.	3 " . . .	60	Wm. Fielder, Franklin, Man.
"	22	"	25836	Martin & Johnson, Brandon . . .	3 " . . .	75	Wilson Com. Co., Brandon.
"	23	"	25837	A. Grant, Brandon	3 " . . .	5	E. D. Smith, Winona, Ont..
"	23	"	25838	Star Grocery, Brandon	3 " . . .	75	Wilson Com. Co., Brandon.
"	28	"	25844	T. R. Brough, Carberry	3 " . . .	75	G. A. Deadman, Brussels, Ont.
"	28	"	25845	Geo. Kennedy, Carberry	3 " . . .	75	Dundas & Flavelle Bros., Lindsay, Ont.

DISTRICT OF CALGARY—

May	9	Honey	28721	Horne & Spice, Lacombe	3 bots. . .	1 05	Pacific Fruit & Syrup Co., San Francisco, U.S.A.
"	9	"	28722	A. Urquhart & Co., Lacombe . .	3 " . . .	60	Upton & Co., London, Ont..
"	9	"	28723	Campbell & Titsworth, Lacombe .	3 " . . .	75	" " . . .
"	9	"	28724	J. G. Pratt, Lacombe	3 " . . .	1 00	G. F. & J. Galt, Winnipeg...
"	11	"	28725	R. Bruce Inglis Co., Edmonton .	3 " . . .	90	H. L. Johnson, Chilliwack, B.C.

SESSIONAL PAPER No. 14
NLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspectors Report.	RESULTS OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct read-ings of Sac-charimeter.	Water loss on drying at 70° C.	Physical Characteristics	

R. W. EARL, INSPECTOR.

.....	+17·8	22·80	Golden brown, clear.	Contains cane sugar ; label on bot-tle reads 'Honey and Sugar Syrup.'
.....	-12·4	22·60	Partly crystallized, yel-low.	Genuine.
.....	+16·0	13·80	Yellow, clear.....	Adulterated with cane sugar.
.....	-17·0	22·40	Crystallized throughout, light yellow.	Genuine.
.....	-16·9	21·60	Crystallized throughout, white.	"
.....	-3·7	24·60	Slightly crystallized, yel-low.	"
.....	-17·2	26·80	Light yellow, clear	" Water content high.
.....	-0·7	21·20	" "	"
.....	-14·3	19·60	Partly crystallized, yel-low.	"
.....	-18·5	19·40	Yellow, clear.....	"
.....	-16·5	17·20	Crystallized throughout, white.	"
.....	-17·8	18·60	Light yellow, crystallized almost throughout.	"
.....	-18·8	21·40	" "	"
.....	-16·7	21·60	Slightly crystallized, dark yellow.	"
.....	-18·1	22·20	Crystallized throughout, yellow.	"
.....	+15·3	22·80	Yellow, clear.....	Adulterated with cane sugar.
.....	-16·6	21·80	Partly crystallized, dark yellow.	Genuine.
.....	+18·9	25·40	Yellow, clear.....	Adulterated with cane sugar. Water content high.
.....	-10·3	23·00	"	Genuine,
.....	-22·0	26·80	Partly crystallized, yel-low.	" Water content high.

R. W. FLETCHER, INSPECTOR.

.....	-17·8	26·00	Dark yellow. Clear.	Genuine. Water content high.
.....	-12·3	23·60	Yellow. Crystallized almost throughout.	"
.....	-14·5	24·00	Yellow. Crystallized almost throughout.	"
.....	-7·5	21·40	Yellow. Partly crystal-lized.	"
.....	-11·2	22·40	Yellow. Crystallized almost throughout.	"

8-9 EDWARD VII., A. 1909

TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Samples.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF CALGARY—

May 11	Honey.....	28726	Hudson Bay Co., Edmonton...	3 " ..	75	Hudson Bay Co., Winnipeg
" 13	"	28727	Duncan Bros. & Batters, Ed- monton.	3 tin...	60	Not known.....
" 13	"	28728	Gariesty & Sesalea, Edmonton..	3 bots..	60	Pacific Coast Syrup Co., Seattle, U.S.
" 13	"	28729	Hallier & Aldridge, Edmonton.	3 " ..	75	Brown & Co., Tothenham, Ont.
" 13	"	28730	C. W. Campbell, Edmonton...	3 " ..	1 00	Pacific Coast Syrup Co., Seattle, U.S.
" 13	"	28731	Matheson & Jacobson, Ed- monton.	3 " ..	1 00	" ..
" 13	"	28732	J. H. Morris & Co., Edmonton	3 " ..	60	G. A. Deadman, Brussels, Ont.
" 14	"	28733	D. H. L. Ghormley, Strathcona	3 " ..	60	Upton & Co., Hamilton, Ont.
" 14	"	28734	F. Cowles, Strathcona.....	3 " ..	60	Unknown.....
" 14	"	28735	Cooke & Orr, Strathcona.....	3 " ..	1 20	Pacific Coast Syrup Co., Seattle, U.S.
" 14	"	28736	A. H. Richards & Co., Strath- cona.	3 " ..	1 50	J. Tulmee & Co., Hamilton, Ont.
" 14	"	28737	A. G. Baahm, Strathcona.....	3 " ..	75	Upton & Co., Hamilton, Ont.
" 14	"	28738	C. Shugerman, Strathcona.....	3 " ..	75	John Stade, Chilliwack, B.C.
" 14	"	28739	Baxter & Co, Strathcona... ..	3 " ..	75	Upton & Co., Hamilton, Ont.
" 14	"	28740	Ross McDonald, Strathcona..	3 " ..	75	Pacific Coast Syrup Co., Seattle, U.S.

DISTRICT OF BRITISH COLUMBIA—

April 15	Honey.....	32022	C. E. Purner, Pender St., Van- couver.	2 jars...	60	Bishop & Co., Los Angelus, Cal., U.S.
" 16	"	32026	Marshall, Smith & Co., Ladner, B.C.	2 " ..	60	Pacific Coast Syrup Co., San Francisco, U.S.
" 16	"	32028	E. Hunt, Stevenson, B.C.....	2 " ..	50	T. W. Kimarire, Lulu Island, B.C.
" 18	"	32029	Frank Wright, Granville St., Vancouver.	3 " ..	75	W. Woodward, Ladner, B.C.
" 22	"	32036	A. H. Keepings, Keefer St., Vancouver.	2 bottles	60	Pacific Coast Syrup Co., San Francisco, U.S.
" 19	"	32048	Geo. Smith, Mount Pleasant, Vancouver.	3 jars...	45	San Diego Honey Co., 707 Sauroure St., San Fran- cisco, U.S.
" 19	"	32049	H. O. Lee, Mount Pleasant, Vancouver.	1 qt....	60	Garcia & Magini, San Fran- cisco, U.S.
" 20	"	32050	The Direct Supply Co., Hast- ings St., Vancouver.	3 jars...	75	John Stade, Chilliwack, B.C.
" 22	"	32051	D. Beare Co., Hastings St., Vancouver.	3 " ..	75	H. L. Johnson, Chilliwack, B.C.
" 22	"	32052	Healy & Vicars, Keefer St., Vancouver.	2 " ..	50	Pacific Coast Syrup Co., San Francisco, U.S.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULT OF ANALYSIS.			Opinion of the Chief Analyst
	Direct reading of Saccharimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

R. W. FLETCHER, INSPECTOR.—Con.

.....	- 1·0	26·60	Pale yellow. Clear.....	Genuine Water content high. Adulterated with cane sugar.
.....	-11·8	22·80	Yellow. Partly crystallized.	Genuine.
.....	-15·4	21·00	Yellow. Clear.....	"
.....	- 12·3	22·80	Yellow. Mostly crystallized.	"
.....	-17·4	23·40	Yellow. Crystallized almost throughout.	"
.....	-16·3	26·40	Dark yellow. Clear.	" Water content high.
.....	-13·2	21·80	Yellow. Clear.	"
.....	-13·9	23·20	Dark yellow. Crystallized throughout.	"
.....	-14·0	21·60	Pale yellow.	"
.....	-16·5	23·20	Yellow. Clear.	"
.....	-12·0	19·80	Pale yellow. Crystallized throughout.	"
.....	-14·0	25·20	Yellow. Crystallized almost throughout.	" Water content high.
.....	-13·0	25·00	Yellow. Partly crystallized.	"
.....	-17·40	24·80	Brown. Partly crystallized.	"
.....	-17·0	27·20	Yellow. Mostly clear but contains a little comb.	" Water content high.

E. B. PARKINSON, INSPECTOR.

Guaranteed pure by the manufacturer.	-14·9	21·20	Yellow, clear.....	Genuine.
"Wild Rose," Finest California Honey, pure.	18·4	24·20	" "	"
.....	-12·9	22·80	Yellow, crystallized, almost throughout.	"
White Clover honey...	-15·0	20·40	Pale yellow, crystallized throughout.	"
"Wild Rose" Finest Californian Honey, pure.	-18·5	28·20	Yellow, clear.....	" Water content high.
"Wild Rose" Honey.....	-11·5	23·80	Dark yellow, crystallized almost throughout.	"
No brand ; no label	-16·4	21·80	Dark yellow, clear.....	"
Pure honey.	-16·0	24·00	Yellow, partially crystallized.	"
"	-13·4	22·00	Dark yellow, partly crystallized.	"
"White Rose" Finest Californian Honey.	-17·4	24·00	Yellow, clear.. ..	"

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TABLE I.—RECORD OF FOOD SAMPLES, HONEY, ANALYZED BY

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF BRITISH COLUMBIA—

April 22	Honey... . . .	32053	Woodward's Dept. Store, Hastings St., Vancouver.	3	"	..	20	Garcia & Magini, San Francisco, U.S.
" 22	"	32054	J. Deal, Cordova St., Vancouver.	2	"	..	60	W. H. McKinly, Vancouver, B.C.
" 22	"	32055	" " " " " "	3	"	..	45	Vendor.....
" 23	"	32056	LaBelle & Co., Westminster St., Vancouver.	3	"	..	25	Garcia & Magini, San Francisco, U.S.
" 23	"	32057	B. B. Brown, Davie St., Vancouver.	3	"	..	75	John Stade, Chilliwack, B.C.
" 23	"	32058	A. J. Hawkes, Denman St., Vancouver.	2	"	..	60	Bishop & Co., Los Angeles, U.S.
" 24	"	32059	West End Grocery, New Westminster, B.C.	2	"	..	50	J. Reagh, Ladnor, B.C.....
" 24	"	32060	Adams & Deans, New Westminster, B.C.	2	"	..	50	R. W. Keegan, Steveston, B.C.
" 25	"	32061	Bruder & Gruchy, Granville St., Vancouver.	1	"	..	35	Garcia & Magini, San Francisco, U.S.
" 29	"	32062	J. McArthur, Westminster St., Vancouver.	2	"	..	50	John Stade, Chilliwack, B.C.

SESSIONAL PAPER No. 14

INLAND REVENUE DEPARTMENT—PUBLIC ANALYST LABORATORY.

Inspector's Report.	RESULT OF ANALYSIS.			Opinion of the Chief Analyst.
	Direct reading of Saccharimeter.	Water loss on drying at 70° C.	Physical Characteristics.	

E. B. PARINSON, INSPECTOR.—*Con.*

No brand or label.	- 19 0	22 20	Yellow, partially crystallized.	Genuine.
Extra fine quality	+ 72 0	24 20	" " "	Adulterated with glucose.
Made from comb honey by the vendor.	- 14 4	22 40	Brown, clear.	Genuine.
No brand or label.	- 21 0	23 60	Dark yellow, partially crystallized.	"
.	- 13 8	18 20	Dark yellow, clear.	"
Guaranteed pure by the manufacturer.	- 18 0	19 80	Yellow, partially crystallized.	"
White Clover Brand. Warranted pure.	- 6 5	20 80	Pale yellow, clear.	"
Pure honey.	- 12 0	20 40	Pale yellow, partially crystallized.	"
No brand and label.	- 16 2	19 80	Yellow, mostly crystallized.	"
Pure honey.	- 18 4	22 00	Yellow, crystallized throughout.	"

APPENDIX L.

BULLETIN No. 146—DRUGS

Bismuth Subnitrate ; Potassium Bromide ; Phenacetin.

OTTAWA, January 25, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue

SIR,—I have the honour to report upon 196 samples of Drugs, collected in December last ; and consisting of the following :—

Table I—Bismuth Subnitrate.....	55	samples.
“ II—Potassium Bromide.....	57	“
“ III—Phenacetin.....	84	“
		—
Total.....	196	

These were obtained in each of the (14) inspectoral districts of the Dominion, and doubtless represent, very fairly, the character of the drugs named, as sold throughout Canada.

It is very gratifying to know that, in no case has anything which could be properly called adulteration been found.

Bismuth Subnitrate. (See Table I). The percentage of Bismuth has been determined by conversion to the oxide. Tests for Lead, Arsenic and Carbonic Acid have been carefully made. With exception of two samples (Nos. 26355 and 31562), the requirements of the British Pharmacopœia were fully met.

The two samples excepted are *Oxy-carbonate of Bismuth*, and are manifestly furnished as errors in dispensing. These two preparations of Bismuth (Subnitrate and Oxy-carbonate) are so similar in their medicinal value that the error is not a serious one. But such errors should not occur.

Potassium Bromide. (See Table II). The British Pharmacopœia describes this drug as required to be within *one per cent* of chemical purity ; and to contain no trace of the heavy metals, or of Cyanides. In all these respects the whole of the 53 samples examined were found to be satisfactory.

Phenacetin. (See Table III). Six samples from each inspectoral district were examined as regards specific identity, and absence of Antifebrin (Acetanilide) and parphenetidin. All were found to be of requisite purity.

The analytical work herein has been done by Mr. Lemoine and Mr. Valin of this staff.

I beg to recommend the publication of this report as Bulletin No. 146.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

8-9 EDWARD VII., A. 1909

TABLE

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cts.	
1907.				Oz.	Cts.	

District of Nova Scotia—

Dec. 3.	Bismuth subnitrate..	27379	Jas. Walsh, Halifax, N.S.	1½	35	National Drug Co., Halifax, N.S.
" 3.	" ..	27380	A. H. Buckley, Halifax, N.S. .	1½	45	Unknown.
" 3.	" ..	27381	National Drug, Halifax, N.S..	1½	27	Vendor
" 10.	" ..	27332	A. S. Hutchins, Liverpool	1½	45	National Drug Co., Halifax, N.S.

District of Prince Edward Island—

Dec. 4.	Bismuth subnitrate..	31205	Dr. J. McNeill, Summerside..	1½	45	National Drug Co., St. John, N.B.
" 4.	" ..	31206	A. W. P. Gourlie, Summerside	1½	38	" " ..
" 7.	" ..	31207	G. E. Hughes, Charlottetown.	1½	38	" " ..
" 7.	" ..	31208	Red Cross Pharmacy, Charlotte- town.	1½	25	" " ..

District of New Brunswick—

Dec. 6.	Bismuth subnitrate..	29624	E. Clinton Brown, St. John, N.B.	1½	45	The National Drug Co., Ltd., St. John, N.B.
" 18.	" ..	29625	J. McD. Cooke, Moncton, N.B.	1½	38	" " ..
Jan. 4.	" ..	29626	Arthur J. Ryan, Fredericton, N.B.	1½	30	" " ..
" 7.	" ..	29627	Garden Bros., Woodstock, N.B.	1½	38	" " ..

District of Quebec—

Dec. 3.	Bismuth subnitrate..	26335	T. A. Peltier, 148 Notre Dame	1½	60	National Drug Co.
" 3.	" ..	26354	R. W. Williams, coin Notre Dame et Platon.	1½	38	" Montreal
" 3.	" ..	26355	T. A. Peltier, 148 Notre Dame	1½	90	"
" 3.	" ..	26357	L. P. Normand, 32 rue des Forges.	1½	30	"

District of St. Hyacinthe—

Dec. 12.	Bismuth subnitrate..	27930	Dr. P. A. Bédard, Drummond-ville.	1½	75	National Drug Co., Mont-real.
" 2.	" ..	27931	Dr. Guay, St. Jean.	1½	35	Not known.. . . .
" 5.	" ..	27932	W. H. Griffith, Sherbrooke....	1½	50	National Drug Co., Mont-real.
" 10.	" ..	27933	Dr. Sylvester, Sorel	1½	35	" " ..

SESSIONAL PAPER No. 14

I.

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Bismuth Oxide.	Lead.	Arsenic.	Carbonate.	
	p. c.				

R. J. Waugh, Inspector.

.....	81·0	None...	None...	None...	Genuine.
.....	80·7	" ...	" ...	" ...	"
.....	80·9	" ...	" ...	" ...	"
.....	81·0	" ...	" ...	" ...	"

T. Moore, Inspector.

.....	82·9	None...	None...	None...	Genuine.
.....	80·6	" ...	" ...	" ...	"
.....	81·1	" ...	" ...	" ...	"
.....	80·9	" ...	" ...	" ...	"

J. C. Ferguson, Inspector.

.....	81·4	None...	None...	None...	Genuine.
From 1 lb. stock bottle...	80·6	" ...	" ...	" ...	"
From stock bottle in store	81·0	" ...	" ...	" ...	"
" " "	80·2	" ...	" ...	" ...	"

E. Beland, Inspector.

.....	80·4	None...	None...	None...	Genuine.
.....	81·1	" ...	" ...	" ...	"
.....	80·8	" ...	" ...	Present.	CO ₂ Approx., 9 p.c.; nitrate also present (Français).
.....	80·3	" ...	" ...	None...	Genuine.

J. C. Rouleau, Inspector.

.....	80·7	None...	None...	None...	Genuine.
From 1 lb. package.....	80·6	" ...	" ...	" ...	"
.....	80·3	" ...	" ...	" ...	"
.....	81·0	" ...	" ...	" ...	"

TABLE

Date of Collection.	Name of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cts.	
1907.				Oz.		

District of Montreal—

Dec. 3.	Bismuth subnitrate..	31559	E. Ethier, Montreal.....	1½	35	Lyman-Knox Co., Montreal
" 5.	" ..	31562	Joseph Pigeon, Montreal	1½	38	Not known.....
" 5.	" ..	31566	A. Lebeau, Montreal	1½	75	Lyman, Sons & Co., Montreal.
" 11.	" ..	31567	S. Gilbert, St. Jerome, Que...	1½	30	Lyman-Knox Co.....

District of Ottawa—

Dec. 9.	Bismuth subnitrate..	34071	F. W. Day, Ottawa	1½	45	E. B. Shuttleworth, Chem. Co., Toronto.
" 9.	" ..	34072	Weldon J. Graham, Ottawa ..	1½	60	Burroughs, Welcome & Co., London, England.
" 13.	" ..	34073	C. A. MacHaffie, Cornwall ...	1½	40	Lyman, Sons & Co., Montreal.
" 17.	" ..	34074	Johnston's Drug Store, Arnprior.	1½	75	National Drug Co., Ottawa

District of Kingston—

Dec. 3.	Bismuth subnitrate..	32497	F. C. Clarke, Belleville... ..	1½	45	National Drug Co., Montreal.
" 3.	" ..	32498	D. M. Waters, Belleville.....	1½	38	Mallinckrodt, N.Y.....
" 4.	" ..	32499	S. H. Macdonald, Peterborough	1½	30	Lyman and Sons, Montreal.
" 4.	" ..	32500	J. D. Tully, Peterborough....	1½	30	Howards, England.....

District of Toronto—

Dec. 11.	Bismuth subnitrate..	33387	W. J. MacFadden, Orillia....	1½	35	Elliot & Co. of Nat. Drug Co., Toronto.
" 12.	" ..	33388	D. H. MacLaren, Barrie.....	1½	50	Nat. Drug & Chem. Co., Montreal.
" 12.	" ..	33389	F. G. Muxlow, Meaford... ..	1½	30	Howard & Sons, E. C.....
" 17.	" ..	33390	T. Steveson, Orangeville.....	1½	30	Lyman Bros., Toronto....

District of London—

Nov. 29.	Bismuth subnitrate..	30443	John Roberts, Seaforth.....	1½	30	Elliot & Co., Toronto.....
Dec. 20.	" ..	35011	Clark Bros., Berlin.....	1½	60	Howard & Sons.....
" 24.	" ..	35012	H. O. Fleming, Windsor.....	1½	20	Merck, Darmstadt.....

SESSIONAL PAPER No. 14

I—Continued.

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Bismuth Oxide.	Lead.	Arsenic.	Carbonate.	
	p. c.				

J. J. Costigan, Inspector.

.....	81.4	None...	None...	None...	Genuine.
.....	82.0	" ...	" ...	Present.	CO ₂ Approx., 9 p.c.; nitrate also present.
.....	80.0	" ...	" ...	None...	Genuine.
.....	80.4	" ..	" ...	" ...	"

J. A. Rickey, Inspector.

.....	80.0	None...	None...	None...	Genuine.
.....	80.2	" ...	" ...	" ...	"
.....	80.7	" ...	" ...	" ...	"
.....	79.8	" ...	" ...	" ...	"

J. Hogan, Inspector.

.....	80.4	None...	None...	None...	Genuine.
.....	80.0	" ...	" ...	" ...	"
.....	80.5	" ...	" ...	" ...	"
.....	81.0	" ...	" ...	" ...	"

H. J. Dager, Inspector.

Sample taken from stock bottle on shelf.	80.9	None...	None...	None...	Genuine.
" " ..	80.4	" ...	" ...	" ...	"
Original was labelled Howard & Sons, C. E.	79.8	" ...	" ...	" ...	"
Sample taken from stock bottle.	80.9	" ...	" ...	" ...	"

S. Kidd, Inspector.

.....	82.0	None...	None...	None...	Genuine.
Sample taken from stock bottle.	80.0	" ...	" ...	" ...	"
Vendor keeps sample in stock bottle. Buys in 1 oz. pkgs.	80.8	" ...	" ...	" ...	"

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TABLE

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cts.	
1907.				Oz.	Cts.	

District of Manitoba—

Dec. 10.	Bismuth subnitrate.	25656	G. McCulloch, Brandon	1½	30	Lyman Bros., Toronto.....
" 10.	" ..	25664	Kennedy's Pharmacy, Brandon	1½	30	The Bole Drug Co., Winni-
" 12.	" ..	25682	M. Ruckle, Winnipeg	1½	35	peg, Man.
" 16.	" ..	25695	Dunkin's Drug Store, Portage la Prairie	1½	75	" .. Not given..

District of Calgary—

Jan. 8.	Bismuth subnitrate..	28842	Bole Drug Co., Calgary.....	1½	30	Nat. Drug Co., Montreal..
" 8.	" ..	28843	Oliver Bros., Calgary.....	1½	30	" " ..
" 8.	" ..	28844	Curry & Cope, Calgary	1½	30	" " ..
" 8.	" ..	28845	W. McLean, Calgary.....	1½	30	" " ..

District of Vancouver—

Dec. 17.	Bismuth subnitrate..	32187	Woods Pharmacy, Vancouver.	1½	45	Henderson Bros., Vancou-
" 17.	" ..	32188	J. W. Morrow, Vancouver....	1½	50	ver. W. J. Bush & Co., London,
" 17.	" ..	32189	Woodward's Dept. Stores, Van-	1½	40	Eng.
" 17.	" ..	32190	couver	1½	70	Henderson Bros., Vancou-
			The McDowell, Atkins, Wat-			ver.
			kins Co			" " ..

District of Victoria—

Dec. 12.	Bismuth subnitrate..	34801	E. Pimbury & Co., Nanaimo,	1½	35	Lyman Bros., Toronto.
1908.			B.C.			
Jan. 28.	" ..	34834	D. E. Campbell, Victoria, B.C.	1½	35	Malinckrodt Chem. Co.,
						N.Y.
" 28.	" ..	34837	Terry & Marett, " ..	1½	35	" "
" 28.	" ..	34840	George Moran, " ..	1½	35	Nat. Drug Co., Montreal.

SESSIONAL PAPER No. 14

I—Concluded.

Inspectors' Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Bismuth Oxide.	Lead.	Arsenic.	Carbonate.	
	p. c.				

A. C. Larivière, Inspector.

.....	79·7	None...	None...	None...	Genuine.
.....	80·2	" ...	" ...	" ...	"
.....	80·7	" ...	" ...	" ...	"
.....	80·5	" ...	" ...	" ...	"

R. W. Fletcher, Inspector.

.....	81·0	None...	None...	None...	Genuine.
.....	81·3	" ...	" ...	" ...	"
.....	80·3	" ...	" ...	" ...	"
.....	82·0	" ..	" ...	" ...	"

E. B. Parkinson, Inspector.

.....	80·3	None...	None...	None...	Genuine.
.....	79·3	" ...	" ...	" ...	"
.....	80·3	" ...	" ...	" ...	"
.....	81·8	" ...	" ...	" ...	"

D. O. Sullivan, Inspector.

.....	80·0	None...	None...	None...	Genuine.
.....	79·9	" ...	" ..	" ...	"
.....	79·8	" ...	" ...	" ...	"
.....	80·4	" ...	" ...	" ...	"

TABLE II.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	Results of Analysis.		Opinion of the Chief Analyst.
				Quantity.	Cts.			Ag NO ₃ 10 cc. per gramme.	Potassium Bromide.	
1907.				Oz.	Cts.				p.c.	
District of Nova Scotia—R. J. Waugh, Inspector.										
Dec. 3.	Potassium Bromide.	27383	Jas. Walsh, Halifax, N.S.	1½	15	National Drug Co., Halifax, N.S.	.....	83·6	99·48	Pharmacopœally, pure.
" 3.	"	27384	A. H. Buckley	1½	5	Unknown	.....	84·2	100·29	"
" 3.	"	27385	Nat. Drug Co.	1½	15	Powers & Weightman, Philadelphia.	.....	84·6	100·67	"
" 4	"	27386	M. P. McCaffery	1½	30	Can. Drug Co., St. John, N.B.	.....	84·2	100·29	"
District of Prince Edward Island—T. Moore, Inspector.										
Dec. 4.	Potassium Bromide.	31209	Dr. J. McNeill, Summerside.	1½	10	Nat. Drug Co., Halifax, N.S.	.....	84·0	99·96	Pharmacopœally, pure.
" 4.	"	31210	P. N. Enman, Summerside.	1½	15	"	.....	84·0	99·96	"
" 4.	"	31211	A. W. Reddin, Charlottetown.	1½	15	Lyman & Sons, Montreal.	.....	83·6	99·48	"
" 4.	"	31212	G. E. Hughes, Charlottetown.	1½	15	Nat. Drug Co., Halifax, N.S.	.....	83·8	99·72	"
District of New Brunswick—J. C. Ferguson, Inspector.										
Dec. 6.	Potassium Bromide.	29628	W. Hawker & Son, St. John, N.B.	1½	30	Evans & Son, Montreal.	.....	84·6	100·67	Pharmacopœally, pure.
" 19.	"	29629	A. E. Shaw, Newcastle, N.B.	1½	15	Nat. Drug Co., Ltd., St. John, N.B.	.....	84·4	100·43	"
" 18.	"	29630	Francis McKay, Moncton.	1½	15	Powers & Weightman, Philadelphia.	.....	84·6	100·67	"
Jan. 7.	"	29631	The Sheasgreen Drug Co., Woodstock, N.B.	1½	15	Nat. Drug & Chem. Co., Ltd., St. John, N.B.	From stock bottle in store.	84·0	99·96	"

District of Quebec—E. Beland, Inspector.

Dec. 3.	Potassium Bromide.	26358	R. W. Williams, Coin Notre-Dame et Peaton.	1½	15	Lyman Knox Co.	84·6	100·67	Pharmacopœally, pure.
" 3.	"	26359	T. A. Peltier, 148 Notre- Dame.	1½	15	National Co.	84·0	99·96	" "
" 4.	"	26360	L. P. Normand, 32 Rue des Forges.	1½	12	Lyman Son Co.	84·6	100·67	" "
" 4.	"	26361	" " "	1½	5	.....	84·6	100·67	" "

District of St. Hyacinthe—J. C. Rouleau, Inspector.

Dec. 3.	Potassium Bromide.	27935	Dr. O. Demers, Farnham.	1½	15	Lyman Knox, Montreal.	84·4	100·43	Pharmacopœally, pure.
" 5.	"	27936	F. D. Hewitt, Sherbrooke.	1½	15	National Drug " "	84·6	100·67	" "
" 6.	"	27937	Dr. Laurendeau, Victoria- ville.	1½	15	Not known	84·2	100·29	" "
" 11.	"	27938	Dr. P. E. Gelinus, Pierre- ville.	1½	15	Nat. Drug, Montreal.	84·4	100·43	" "

District of Montreal—J. J. Costigan, Inspector.

Dec. 3.	Potassium Bromide.	31560	E. Ethier, Montreal.	1½	15	Lyman Knox Co., Montreal	84·4	100·43	Pharmacopœally, pure.
" 5.	"	31563	Joseph Pigeon, Montreal.	1½	15	Not known	84·4	100·43	" "
" 11.	"	31568	S. Gilbert, St. Jerome, P.Q.	1½	10	Kent & Stevenson, Mon real.	84·6	100·67	" "
" 13.	"	31570	J. T. Gaudet, Juliette	1½	15	.....	84·6	100·67	" "

District of Ottawa—J. A. Ricken, Inspector.

Dec. 9.	Potassium Bromide.	34075	A. J. Brownlee, Ottawa.	1½	15	Lyman Sons	83·8	99·72	Pharmacopœally, pure.
" 9.	"	34076	R. M. Arbuthnot, Ottawa.	1½	15	Nat. Drug & Chem. Co.	84·0	99·96	" "
" 13.	"	34077	Medical Hall Co., Cornwall.	1½	15	Not known	84·6	100·67	" "
" 17.	"	34078	C. A. Ramsdew, Arnprior.	1½	15	"	83·8	99·72	" "

District of Kingston—J. Hogan, Inspector.

Dec. 3.	Potassium Bromide.	33057	F. C. Clark, Belleville.	1½	15	Nat. Drug Co., Montreal.	84·6	100·67	Pharmacopœally, pure.
" 3.	"	33058	D. M. Waters, Belleville.	1½	15	Lyman, Montreal	84·2	100·29	" "
" 4.	"	33059	S. H. MacDonald, Peter- borough.	1½	15	Lyman Sons, Montreal.	84·6	100·67	" "
" 4.	"	33060	J. D. Tully, Peterborough.	1½	15	Nat. Drug Co., Montreal.	84·2	100·29	" "

TABLE II.—Concluded.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	Results of Analysis.		Opinion of the Chief Analyst.
				Quantity.	Cts.			Ag. No. 10 cc. per gramme.	Potassium Bromide.	
1907.				Oz.	cts.				p.c.	
District of Toronto—H. J. Dager, Inspector.										
Dec. 12.	Potassium Bromide.	33391	Wm. Crossland, Barrie....	1½	15	Drug Trading Co., Toronto	Sample taken from stock bottle.	83·8	99·72	Pharmacopœally, pure
" 13.	"	33392	Thos. McConoll, Meaford.	1½	15	Dom. Drug Co., Hamilton.	" "	84·4	100·43	"
" 18.	"	33393	S. C. Hatton, Owen Sound	1½	15	Lyman, Knox and Clark-son, Toronto.	Sample taken from original package	84·2	100·29	"
" 19	"	33394	G. A. Ramsden, Georgetown	1½	15	Nat. Drug Co., Toronto...	Sample taken from stock bottle.	83·8	99·72	"
District of London—T. Kidd, Inspector and H. J. Dager, Acting Inspector.										
Nov. 30.	Potassium Bromide.	30446	S. E. Hicks, Druggist.....	1½	25	Lyman Brothers, Toronto.	Sample taken from stock bottle.	84·6	100·67	Pharmacopœally, pure.
Dec. 2.	"	30452	A. McRea, Stratford....	1½	15	Don. Drug Co., Hamilton.		84·6	100·67	"
" 6.	"	30462	Charles Aberhart, Seaforth	1½	30	Elliot & Co., Toronto....		84·4	100·43	"
" 26.	"	35009	S. F. Park & Co., Chatham	1½	15	Don. Drug Co., Hamilton.		83·8	99·72	"
" 27.	"	35010	J. E. Platt, London.....	1½	15	Nat. Drug Co., London...	Sample taken from stock bottle. Vendor says it is pure.	83·8	99·72	"
District of Manitoba—A. C. Lariviere, Inspector.										
Dec. 10	Potassium Bromide.	25657	G. McCulloch, Brandon...	1½	30	Lyman Brothers, Toronto.	Not given	84·0	99·96	Pharmacopœally, pure.
" 10.	"	25665	Kennedy's Pharmacy, Brandon.	1½	25	The Bole Drug Co., Win-peg.		84·0	99·96	"
" 12.	"	25683	M. Ruckee, Winnipeg.....	1½	15	Not given		84·0	99·96	"
" 16	"	25696	Dunkin's Drug Store, Port-age la Prairie.	1½	15	"		84·2	100·29	"

District of Calgary—R. W. Fletcher, Inspector.

Jan. 8.	Potassium Bromide.	28846 Bole Drug Co., Calgary...	1½	10	Unknown		84·0	99·96	Pharmacopœally, pure.
" 8.	"	28847 Oliver Bros., Calgary.....	1½	30	Nat. Drug Co., Montreal..		84·2	100·29	"
" 8.	"	28848 Curry & Cope, Calgary.....	1½	10	" "		84·0	99·96	"
" 8.	"	28849 W. McLean, Calgary.....	1½	10	" "		84·2	100·29	"

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District of Vancouver—E. B. Parkinson, Inspector.

Dec. 17.	Potassium Bromide.	32191 Woods' Pharmacy, Vancou- ver.	1½	25	Henderson Bros., Vancou- ver.		84·2	100·29	Pharmacopœally, pure.
" 17.	"	32192 J. W. Morrow, Vancouver.	1½	35	W. J. Bush & Co., London, Eng.		84·0	99·96	"
" 17.	"	32193 Woodward Dept. Stores, Vancouver.	1½	15	Henderson Bros., Vancou- ver.		84·0	99·96	"
" 17.	"	32194 The McDowell, Atkins, Watkins Co., Vancouver.	1½	25	" "		83·8	99·72	"

District of Victoria—D. O. Sullivan, Inspector.

Dec. 12. 1908.	Potassium Bromide.	34803 E. Pimbury & Co., Na- nimo, B.C.	1½	25	Nat. Drug & Chem. Co., Canada.	.....	83·6	99·48	Pharmacopœally, pure.
Jan. 28.	"	34835 D. E. Campbell, Victoria, B.C.	1½	30	Lyman Sons, Montreal....	.....	84·0	99·96	"
" 28.	"	34838 Terry & Maret, Victoria, B.C.	1½	25	" "	.....	84·4	100·41	"
" 28.	"	34841 Geo. Morison, Victoria, B.C.	1½	50	Nat. Drug Co., Montreal.	.....	84·2	100·19	"

District of New Brunswick—J. C. Ferguson, Inspector.

Dec.	3.	Phenacetin.....	29632	The Nat. Drug and Chem. Co., Ltd., St. John, N.B.	3	1 50	Fred. Bayer, Elberfeld, Ger	No. 184 on package.....	Present.	None.	None.	Genuine.
14	"	"	29633	Geo. A. Moore "	1½	0 60	"	Sample taken from original package.	"	"	"	"
14½	"	"	29634	Fairweather Bros., Monc- ton, N.B.	1½	0 30	"	"	"	"	"	"
"	21.	"	29635	A. W. G. McDonald, Camp- bellton, N.B.	1½	0 75	"	"	"	"	"	"
Jan.	4.	"	29636	Alonzo Staples, Fredericton, N.B.	1½	0 50	The Can. Drug Co., Ltd., St. John, N.B.	From stock, bottle, Mercks, Germany.	"	"	"	"
"	7.	"	29637	E. W. Mair, Woodstock, N.B.	1½	0 30	E. Merck, Darmstadt, Ger.	From original package, on package, made in Ger....	"	"	"	"

District of Quebec—E. Beland, Inspector.

Dec.	3.	Phenacetin.....	26362	R. W. Williams, coin Notre- Dame et Platon.	1½	0 40	Lyman Knox.....	.....	Present.	None.	None.	Genuine.
"	3.	"	26363	S. A. Peltier, 148 N. Dame	1½	0 25	"	.....	"	"	"	"
"	4.	"	26364	L. P. Normand, 32 rue des Forges.	1½	0 20	Lyman Sons Co.....	.....	"	"	"	"
"	11.	"	26365	O. T. Dion, Levis.....	1½	0 75	Bayer.....	.....	"	"	"	"
"	13.	"	26376	W. Brunet et Cie, Quebec.	3	1 05	"	.....	"	"	"	"
"	13.	"	26377	L. E. Martel "	3	0 65	"	.....	"	"	"	"

District of St. Hyacinthe—J. C. Rouleau, Inspector.

Dec.	3.	Phenacetin.....	27939	Dr. O. Demers, Farnham..	1½	0 40	Polson, Kingston, Ont.....	Box marked Para-acetphe- netidin powdered, made in Switzerland, 35268.	Present.	None.	None.	Genuine.
"	4.	"	27940	Dr. G. A. Coderre, Megan- tic.	1½	0 75	Lyman Knox, Montreal...	Box marked No. 400086, T. Bayer & Co.	"	"	"	"
"	4.	"	27941	" "	1½	0 60	"	Box marked Para-acetphe- netidin, E. Merck, Germ- any.....	"	"	"	"
"	4.	"	27942	J. C. Sutherland, Richmond	1½	0 37	.....	any.....	"	"	"	"
"	6.	"	27943	Dr. J. P. H. Massicotte, Victoriaville.	1½	0 75	Dr. Peltier, Victoriaville..	Jar marked Phenacetine...	"	"	"	"
"	10.	"	27944	P. E. Chevalier, Sorel.....	1½	0 45	Not known.....	.....	"	"	"	"

TABLE III—Continued.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Inspector's Report.	Results of Analysis.			Opinion of the Chief Analyst.
				Quantity.	Cts.		Identification Test.	Antifebrine (Acetanilide)	Paraphenetidine.	
1907.				Oz.	\$ cts.					

District of Montreal—J. J. Costigan, Inspector.

Dec. 3.	Phenacetin.....	31561	E. Ethier, Montreal.	1½	0 58	Lyman Knox & Co., Montreal.	.....	Present.	None.	None.	Genuine.
" 5.	"	31564	Joseph Pigeon, Montreal..	1½	0 30	Not known.....	.....	"	"	"	"
" 5.	"	31565	A. Lebeau	1½	0 75	Lyman Sons Co., Montreal	.....	"	"	"	"
" 11.	"	31569	E. N. Fournier, St. Jérôme, P.Q.	1½	0 40	Nat. Drug and Chem. Co..	.....	"	"	"	"
" 16.	"	31571	P. McCormack, Montreal..	1½	0 40	" .. ..	.....	"	"	"	"
" 16.	"	31572	J. A. Nicolle	1½	0 40	.....	.....	"	"	"	"

District of Ottawa—J. A. Rickey, Inspector.

Dec. 9.	Phenacetin.....	34079	F. W. Day, Ottawa.....	1½	0 45	Lyman Sons.....	German Phenacetin.....	Present.	None.	None.	Genuine.
" 10.	"	34080	Wm. A. Lloyd, Ottawa...	1½	0 60	Bayer & Co., Elberfeld, Ger.	.....	"	"	"	"
" 10.	"	34081	E. D. Story, Ottawa.....	1½	0 75	Burgoyne Burbeidges & Co	.....	"	"	"	"
" 11.	"	34082	Dr. A. Robillard & Son, Ott'a.	1½	0 75	Bayer, Elberfeld, Germany	Box marked the original product.	"	"	"	"
" 13.	"	34083	E. H. Brown, Cornwall...	1½	0 40	Bayer, Paris .. ..	.....	"	"	"	"
" 17.	"	34084	A. T. Budd, Arnprior.....	1½	0 75	Bayer, Germany.. ..	.....	"	"	"	"

District of Kingston - J. H. Hogan, Inspector.

Dec.	Pharmacotin.			Present.	None.	Genuine.
3	33050	G. Watson, Port Hope.	1 1/2	0 60		
3	33051	H. C. Clark, Belleville.	1 1/2	0 60		
3	33053	D. M. Waters, Belleville.	1 1/2	0 38		
3	33054	H. W. Mitchell, Port Hope.	1 1/2	0 50		
3	33055	S. H. Macdonald, Peterboro.	1 1/2	0 50		
3	33056	J. D. Tully, Peterboro.	1 1/2	0 75		

District of Toronto—H. J. Dager, Inspector.

Dec.	9	Phenacetin.	33381	C. A. Nettleton, Penetan- guishene.	1 1/2	0 50	Basle Chem. Works, Switz.	Sample sold as Phenacetin.	Present.	None.	None.	Genuine.
"	10	"	33382	J. S. Fraleigh, Midland...	1 1/2	0 75	Dom. Drug Co., Hamilton.	.....	"	"	"	"
"	11	"	33383	H. Cook & Co., Orillia ...	1 1/2	0 75	Lyman Bros., Toronto	Vendor said it was parceled to him from bulk with no label attached.	"	"	"	"
"	13	"	33384	A. H. Johnson, Collingwood	1 1/2	0 50	Hoffman & Laroche Co.	Sample taken from original package.	"	"	"	"
"	18	"	33385	Parker & Co., Owen Sound	1 1/2	0 50	F. Bayer & Co., Elberfeld..	"	"	"	"	"
"	19.	"	33386	A. C. Cook, Brampton....	1 1/2	0 50	E. Merck, Darmstadt.....	"	"	"	"	"

District of London—**T. Kidd, Inspector, and H. J. Dager, Acting Inspector.**

Dec.	2.	Phenacetin.....	30451 E. C. Nasmith, Stratford..	1 1/2	0 30	E. Merck, Germany.....	.....	Present.	None.	Genuine.
"	4	"	30456 J. E. Hovey, Clinton.....	1 1/2	0 60	Not known.....	Brand: Elberfeld Bayer...	"	"	"
"	6	"	30461 Chas. Aberhart, Seaforth..	1 1/2	0 60	Lynian Bros., Toronto.....	.....	"	"	"
"	23.	"	35006 J. H. Nasmyth & Co., Woodstock	1 1/2	0 35	Drug Trading Co., Toronto	Vendor purchased sample in original boxes labeled, Para-acetphenetidin + powder made in Switzl'd.	"	"	"
"	26	"	35007 C. H. Gunn & Co., Chatham.	1 1/2	0 45	Merck & Co., Darmstadt..	Sample taken from stock bottle.	"	"	"
"	27	"	35008 W. T. Strong, London...	1 1/2	0 75	"	"	"	"	"

TABLE III—Concluded.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	Inspector's Report.	Results of Analysis.			Opinion of the Chief Analyst.
				Quantity.	Cts.			Identification Test.	Antifebrine (Acetanilide)	Paraphenetidine.	
				Oz.	\$ cts.						
District of Manitoba—A. C. Larivière, Inspector.											
Dec. 10.	Phenacetin.	25658	G. McCulloch, Red Cross Drug Co., Brandon.	1½	0 75	E. Merck, Darmstadt, Ger.	.....	Present.	None.	None.	Genuine.
" 10.	"	25666	Kennedy's Pharmacy, Brandon.	1½	0 60	" "	.....	"	"	"	"
" 12.	"	25684	M. Ruckee, Winnipeg.	1½	0 40	The Bole Drug Co., Winnipeg.	.....	"	"	"	"
" 16.	"	25697	Cowan's Drug Store, Portage la Prairie.	1½	0 75	Not given.	.....	"	"	"	"
" 16.	"	25700	J. K. Hall, Portage la Prairie.	1½	0 75	E. Merck, Darmstadt, Ger.	.....	"	"	"	"
" 18.	"	25848	Harrison Bros., Winnipeg.	1½	0 45	Not given	.....	"	"	"	"
District of Calgary—R. W. Fletcher, Inspector.											
Jan. 8.	Phenacetin.	28850	O. H. Bott, Calgary.	1½	0 30	E. Merck, Darmstadt.	.....	Present.	None.	None.	Genuine.
" 8.	"	28851	Boll Drug Co., Calgary.	1½	0 30	Unknown	.....	"	"	"	"
" 8.	"	28852	Oliver Bros., Calgary.	1½	0 30	Bayer & Co., Germany.	.....	"	"	"	"
" 8.	"	28853	Curry & Cope, Calgary.	1½	0 30	" "	.....	"	"	"	"
" 8.	"	28854	C. A. Wallace, Calgary.	1½	0 30	" "	.....	"	"	"	"
" 8.	"	28855	W. McLean, Calgary.	1½	0 30	" "	.....	"	"	"	"

District of Vancouver—E. B. Parkinson, Inspector.

Dec. 17.	Phenacetin..	32195	Wood's Pharmacy, Vancouver.	1½	0 60	The Dom. Drug & Chem. Co., Hamilton.	.....	Present.	None.	None.	Genuine.
" 17.	"	32196	J. W. Morrow, Vancouver	1½	0 75	Henderson Bros, Vancouver	.....	"	"	"	"
" 17.	"	32197	Woodward's Dept. Stores, Vancouver.	1½	0 75	Dom. Drug and Chem. Co., Hamilton..	.....	"	"	"	"
" 17.	"	32198	The McDowell Atkins Watkins Co.	1½	0 85	J. D. Riedel, Berlin, Ger..	.....	"	"	"	"
" 17.	"	32199	The Red Cross Drug Store, Vancouver.	1½	0 60	Friede Bayer & Co., Elberfeld, Prussia.	.....	"	"	"	"
" 17.	"	32200	Terry & Maret, Vancouver	1½	0 75	F. Hoffman, Laroche & Co., Basil, Switzerland.	.....	"	"	"	"

District of Victoria—D. O. Sullivan, Inspector.

Dec. 12. 1908.	Phenacetin..	34802	E. Pinbury & Co., Nanaimo, B.C.	1½	0 25	Henderson Bros., Vancouver.	.....	Present.	None.	None.	Genuine.
Jan. 28.	"	34836	D. E. Campbell, Victoria, B.C.	1½	0 90	Fred. Bayer & Co., Elberfeld, Ger.	.....	"	"	"	"
" 28.	"	34839	Terry & Maret, Victoria, B.C.	1½	0 50	Lyman & Sons, Montreal..	.....	"	"	"	"
" 28.	"	34842	G. A. Fraser, Victoria, B.C.	1½	0 60	Fred. Bayer & Co., Elberfeld, Ger.	.....	"	"	"	"
" 28.	"	34843	Hall & Co., "	1½	1 00	"	.....	"	"	"	"
" 28.	"	34844	Geo. Morrison, "	1½	0 50	"	.....	"	"	"	"

APPENDIX M.

BULLETIN No. 147—LARD

OTTAWA, February 3, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to send you, herewith, a tabular statement regarding the collection and examination of 140 samples of Lard, obtained throughout the Dominion in December last.

The following synopsis gives the details by Inspectoral Districts :—

	Genuine.	Doubtful.	Adulterated.	Compound.	Total.
Nova Scotia.....	9	1	0	0	10
Prince Edward Island.....	7	2	0	1	10
New Brunswick.....	7	3	0	0	10
Quebec.....	10	0	0	0	10
St. Hyacinthe.....	8	1	0	1	10
Montreal.....	10	0	0	0	10
Ottawa.....	9	0	1	0	10
Kingston.....	10	0	0	0	10
Toronto.....	10	0	0	0	10
London.....	10	0	0	0	10
Manitoba.....	10	0	0	0	10
Calgary.....	10	0	0	0	10
Vancouver.....	9	0	1	0	10
Victoria.....	10	0	0	0	10
Total.. ..	129	7	2	2	140

Ninety-two per cent of the samples examined are genuine ; and ninety-three (93) per cent of the samples *sold as genuine*, are found to be so.

Only two (2) samples are classified as adulterated. Among those samples (seven in number) which I have called doubtful, it may be that admixture, amounting to adulteration, exists in one or two cases ; but the results of analysis are sufficiently indecisive to warrant me in withholding definite judgment. The amount of foreign matter is either very trifling, or the characteristic constants which we possess admit of interpretation favourable to the vendor ; although doubtfully so.

It is to be regretted that a definite standard, capable of being expressed in numbers, does not exist for Lard. It is well understood that this article is essentially the fat of the hog, and should contain mere traces of other ingredients ; but just what these other ingredients may be, and at what point the ‘traces’ may become large enough to be taken into account, are points which remain unsettled.

The following definitions for Lard, became legal for the district of Columbia in 1906, and have since been accepted by several of the States of the Union.

1. *Lard* is the rendered fresh fat from hogs in good health at the time of slaughter, is clean, free from rancidity, and contains, necessarily incorporated in the process of rendering, not more than one (1) per cent of substances other than fatty acids and fat.

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2. *Leaf Lard* is lard rendered at moderately high temperature from the internal fat of the abdomen of the hog, excluding that adherent to the intestine, and has an Iodine number not greater than sixty (60).

3. *Neutral Lard* is lard rendered at low temperatures.

These definitions are satisfactory, so far as they go ; but they are by no means as full and exact as could be wished.

The last systematic inspection of lard was made in 1889 ; and the results were published as Bulletin No. 7 of this Department.

109 samples were examined, of which only 35 were certainly Canadian. Of these, three samples were adulterated. Of 60 samples known to be of United States origin, a majority contained cotton seed oil, without acknowledgment.

No objection, on the ground of healthfulness, can be taken to the use of purified cotton seed oil ; but, the fact of admixture should, of course, be distinctly stated on the label. The same may be said of beef tallow.

I beg to recommend the publication of this report, as Bulletin No. 147.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

8-9 EDWARD VII., A. 1909

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF NOVA SCOTIA —

Dec.	3	Lard.....	33466 J. L. Archibald & Son, Halifax, N.S.	1½ lbs. . .	26	Davis & Fraser, Halifax . . .
"	3	"	33467 City Provision Store, Halifax, N.S.	1½ " . .	23	John Morrell Co., U.S.
"	3	"	33468 W. J. Forristall, Halifax. N S.	1½ " . .	27	Swift's Co., U.S.A.
"	3	"	33469 T. Brown, Halifax, N.S. . . .	1½ " . .	27	Cudahy Packing Co., U.S.A.
"	3	"	33470 Jas. A. Leaman & Co., Halifax, N.S.	1½ " . .	23	Vendor
Dec.	4	"	33471 W. A. Maling & Co., Halifax, N.S.	1½ " . .	23	"
"	4	"	33472 Creig & Hodgson, Halifax, N.S.	1½ " . .	24	Swift's, U.S.A.
"	4	"	33473 Geo. Hirshfeld, Halifax, N.S. .	1½ " . .	22	Vendor.
"	4	"	33474 T. Spry, Halifax, N.S.	1½ " . .	23	"
Dec.	5	"	33500 C. S. Davis, Halifax, N.S. . .	1½ " . .	23	"

DISTRICT OF PRINCE EDWARD ISLAND—

Dec.	2	Lard...	31185 Geo. Rackham, Charlottetown	1½ lbs. . .	27	Thos. Strickland, Charlotte-town.
"	2	"	31186 R. F. Maddigan, Charlottetown	1½ " . .	24	Chaput Fils & Co., Montreal.
"	2	"	31187 Sanderson & Co., Charlottetown	1½ " . .	24	Laing Packing Co., Montreal.
"	2	"	31188 L. J. McDonald, Charlottetown	1½ " . .	27	Davies, Limited, Montreal. .
"	2	"	31189 Coffin & Co., Charlottetown. . .	1½ " . .	30	Davis & Fraser, Charlotte-town.
Dec.	4	"	31190 R. T. Holman Ltd, Summerside.	1½ " . .	24	Park, Blackwell & Co. Ltd., Toronto.
"	4	"	31191 W. J. Lidstone, Summerside . .	1½ " . .	24	The Whyte Packing Co., Stratford, Ont.
"	4	"	31192 F. W. Strong, Summerside. . . .	1½ " . .	21	Laing Packing Co., Montreal.
"	5	"	31193 D. McKenzie, Kensington. . . .	1½ " . .	25	Park, Blackwell & Co., Ltd., Toronto.
"	9	"	31194 A. Gates & Co., Charlottetown	1½ " . .	24	Chaput Fils & Co., Montreal.

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Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-refrac- tometer at 40° C.	Re- Halphen action.	

R. J. WAUGH, INSPECTOR.

.....	None.	51·5	49·8	None.	Genuine.
In pails of 30 lbs ; Labeled pure.	"	62·8	51·4	"	"
Labeled Pure Silver Leaf Brand.	"	63·9	51·2	"	"
Labeled Rex Brand.....	"	64·6	51·5	"	"
.....	"	47·7	49·1	"	Doubtful ; is abnormal, and may contain beef fat.
.....	"	52·0	49·3	"	Genuine.
Silver Leaf Brand.....	"	57·3	51·3	"	"
.....	"	55·5	50·3	"	"
.....	"	53·5	49·7	"	"
.....	"	54·2	49·7	"	"

T. MOORE, INSPECTOR.

.....	None.	49·0	49·3	None.	Doubtful ; is abnormal, and may contain beef fat.
.....	"	56·4	50·1	"	Genuine.
.....	"	57·3	50·9	Slight red.	Doubtful ; appears to contain a trace of cotton seed oil.
.....	"	64·8	51·0	None.	Genuine.
.....	"	52·4	49·8	"	"
.....	"	66·6	51·5	"	"
.....	"	57·5	50·3	"	"
Sold as compound.....	0·16	86·1	56·4	Deep red.	Contains cotton seed oil.
.....	None.	63·7	50·9	None.	Genuine.
.....	"	52·9	50·4	"	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF NEW BRUNSWICK—

Dec.	3	Lard, cake....	29604	Messrs. John Hopkins, St. John, N.B.	1½ lbs. . .	27	Vendors, manfrs
"	10	" bar.....	29605	E. B. Taylor, St. John, N.B...	1½ " . .	21	"
"	11	" bar.....	29606	W. A. Porter, St. John, N.B...	1½ " . .	27	Slipp & Flewelling, St. John, N.B.
"	11	" leaf	29607	F. E. Williams Co. Ltd., St. John, N.B.	1½ " . .	27	Vendors, manfrs.
"	17	" package.	29608	Geo. H. Ingraham, Sussex, N.B.	2 " . .	32	Sussex Packing Co., Sussex King's Co., N.B.
"	18	" tub	29609	Cassedy & Belliveau, Moncton, N.B.	1½ " . .	23	The Wm. Davies Co. Ltd., Toronto, Ont.
"	19	" tub.....	29610	Miller Brothers, Newcastle, N.B.	1½ " . .	24	Park, Blackwell & Co. Toronto.
"	21	" tub.....	29611	Wm. Currie & Co., Campbellton, N.B.	1½ " . .	24	Swift & Co., U.S.A.....
1908.							
Jan.	4	"	29612	James Boyle & Sons, Fredericton, N.B.	1½ " . .	23	Montreal Packing Co. Ltd., Montreal, P.Q.
"	6	" leaf.....	29613	Imperial Packing Co., Woodstock, N.B.	1½ " . .	21	Vendors.....

DISTRICT OF QUEBEC—

Dec.	5	Lard	26333	L. P. St. Pierre, 165 Rue Notre Dame.	1 lbs. . .	25	Montreal Packing Co.
"	5	"	26366	O. Carignan & Fils, Trois Rivières, P.Q.	2 " . .	36	" "
"	4	"	26367	Durand & Précourt, 52 Rue des Forges.	1 " . .	15	" "
"	4	"	26368	J. O. Gauthier, 33 Rue des Forges.	3 " . .	45	Laing Packing & Provision Co.
"	4	"	26369	Belfeuille & Geronx, 46 Rue des Forges.	1 " . .	15	Laing's, Montreal
"	4	"	26370	L. Brunelle & Frère, 33 Rue Platon.	1¼ " . .	18	Swift & Co., Chicago.
"	4	"	26371	C. B. Morissette & Co., 21 Rue Platon.	1¼ " . .	18	Laing's, Montreal
"	11	"	26372	Mad. T. B. Nadeau, 86 Com. mercial Lévis.	1 " . .	16	G. D. Couture.....
"	11	"	26373	Antoine Carrier, 95 St. Laurent Lévis.	2 " . .	36	Vendor.....
"	11	"	26374	Godfroid Barron, 105 St. Laurent Lévis.	1½ " . .	24	Antoine Carrier....

SESSIONAL PAPER No. 14

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-refrac- tometer at 40° C.	Halphen Re- action.	

J. C. FERGUSON, INSPECTOR.

Sample from a 3 lb. bar in store; local term, Cake Lard.	None.	54·8	48·8	None.	Genuine.
Sample from 3-lb bar	0·16	54·2	50·4	"	"
" "	None.	53·7	50·5	"	"
" "	"	50·0	53·3	"	"
Sweet Briar Brand. Rend- ered by The Matthews Packing Co. Ltd., Sussex, N.B.	"	47·5	49·3	"	Doubtful; probably contains beef fat.
Tub Lard. Sample from 55 lb. tub.	1·36	57·0	49·2	"	Doubtful; as containing over 1 per cent, water.
Tub Lard. Sample from 50 lb. tub.	None.	51·4	48·8	Slight red.	Doubtful; containing a trace of cotton seed oil.
Sample taken from 50 lb tub Brand Swift's Siver Leaf Lard.	0·40	63·3	51·9	None.	Genuine.
Pound packages, Corona Brand. Original wrap- pers on samples.	0·36	53·0	50·0	"	"
From steam vat while rend- ering. Native Hogs. Hil- ton Hay, President, R. A. Bell, Foreman.	None.	51·0	49·7	"	"

E. BELAND, INSPECTOR.

.	None.	62·2	50·7	None.	Genuine.
.	"	52·6	50·6	"	"
.	"	54·4	50·9	"	"
.	"	55·7	51 0	"	"
.	"	62·6	51·6	"	"
.	"	58·2	50·8	"	"
.	"	61·0	51 3	"	"
.	"	54·3	50·3	"	"
.	"	59·0	51·6	"	"
.	"	66·0	51·6	"	"

8-9 EDWARD VII., A. 1909

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF ST. HYACINTHE—

Nov. 29	Lard	27910	Thos. Hebert, St. Hyacinthe . .	1½ lbs. . .	23	The Whyte Packing Co., Stratford, Ont.
Dec. 2	"	27911	H. Claprood, St. Jean.	1½ " . .	23	N. K. Fairbank, Montreal. . .
" 2	"	27912	A. Beauchamp, St. Jean	1½ " . .	24	Vender.
" 2	"	27913	T. Landry & Fils, Stanbridge. .	1½ " . .	20	Davies Limited, Montreal. . .
" 3	" Lily White	27914	J. B. Nadeau, Montreal.	1½ " . .	24	Collingwood Packing Co., Collingwood, Ont.
" 4	"	27915	C. S. Roy, Megantic.	1¼ " . .	22	Alex. Ames, Sherbrooke, Que.
" 5	"	27916	The Hovey Bros. Packing Co., Sherbrooke.	1 pail. . .	80	Vendors.
" 5	"	27917	A. W. Beausoliel, Richmond . .	1 lb. . . .	15	Park Blackwell Co., Toronto.
" 10	"	27918	Guyon & Hanfield, Contrecoeur.	1½ lbs. . .	23	L. Chaput, Fils & Cie., Mon- treal.
" 12	"	27919	E. A. Piché	1½ " . .	23	The Montreal Packing Co., Montreal.

DISTRICT OF MONTREAL—

Dec. 5	Lard	31549	A. Lagarde, 549 Notre Dame W., Montreal.	1½ lbs. . .	24	Not known.
" 5	"	31550	A. Desrocher, 7 Mountain St., Montreal.	1½ " . .	23	Swift, Chicago, Ill.
" 13	"	31551	C. Barrette, Joliette, P.Q.	1½ " . .	21	" "
" 13	"	31552	Malo Bros, Joliette, P.Q.	1½ " . .	23	Lang P. & P. Co., Montreal. .
" 16	"	31553	A. Racicot, 58 Prince Arthur St., Montreal.	1½ " . .	25	Gunn & Langlois.
" 16	"	31554	W. Pierre & Bros., 45 Prince Arthur St., Montreal.	1½ " . .	26	Davies Ltd., Montreal
" 16	"	31555	R. E. Kelly, Huntingdon, P.Q..	1½ " . .	24	. . . . .
" 16	"	31556	A. Chalmers, Huntingdon, P.Q.	1½ " . .	30	Montreal Packing Co.
" 19	"	31557	Jas. Duncan, Lachine, P.Q . .	1½ " . .	23	Park Blackwell Co., Ltd., Toronto.
" 19	"	31558	O. Poitras, Lachine, P.Q . . .	1½ " . .	23	. . . . .

SESSIONAL PAPER No. 14

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-reirac- tometer at 40° C.	Halphen Re- action.	

J. C. ROULEAU, INSPECTOR.

Labeled Pure Kettled Lard	0·16	58·0	51 1	None.	Genuine.
Labeled N.K.Fairbank Re- fined Lard Compound. Trade Mark, Boar's Head.	None.	91·8	56·8	Deep red.	Contains cotton seed oil.
.....	"	43·3	48·8	None.	Doubtful, probably contains beef fat.
Labeled Pure Lard, Davies Ltd., Montreal.	0·10	60·2	50·6	"	Genuine.
Labeled, Absolutely Pure Lard.	None.	53·5	50·4	"	"
Warranted pure lard.	0·28	54·0	50·5	"	"
Marked, Pure Kettle Ren- dered Leaf Lard.	0·16	53·5	50·4	"	"
Marked, 493447 Canada Approved. Pure Lard.	None.	54·3	50·3	"	"
Marked, 'Extra Pure Lard Perfection 48614 Canada Approved.	"	57·5	50·6	"	"
Marked, Corona Pure Lard.	"	52·5	50·3	"	"

J. J. COSTIGAN, INSPECTOR.

.....	None.	53·5	50·0	None.	Genuine.
.....	"	62·5	50·1	"	"
Tub has U.S. Inspection Stamp 3857403 pasted thereon.	"	63·5	52·0	"	"
.....	"	59·5	50·7	"	"
.....	"	58·4	50 7	"	"
.....	"	52·8	49·8	"	"
.....	"	53·9	50·0	"	"
Crown Brand Pure Lard.	0·10	55·5	50·3	"	"
.....	0·20	57·3	50·3	"	"
Silver Leaf Brand.....	None.	63·9	50·3	"	"

8-9 EDWARD VII., A. 1909

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF OTTAWA—

Dec.	11	Lard	34085	Goodall Bros., Ottawa	1½ lbs. . .	19	The Geo. Matthews Co., Ltd., Ottawa.
"	11	"	34086	P. D. Herbert, Cor. Bank and Lisgar Sts., Ottawa.	1½ " . .	15	Swift Co., Chicago
"	12	"	34087	C. Moreland, Cor. Bank and 4th Ave., Ottawa.	1½ " . .	20	Park Blackwell & Co., Ltd., Toronto.
"	12	"	34088	A. P. Johnson, Ottawa	1½ " . .	16	Swift & Co., Chicago
"	12	"	34089	The Geo. Matthews Co., Cor. Bank and Lewis Sts., Ottawa.	1½ " . .	16	Vendors
"	12	"	34090	T. Lindsay Co., Ottawa	1½ " . .	23	The Geo. Matthews Co., Ltd.
"	13	"	34091	Alfred Edwards, Cornwall	1½ " . .	17	The Montreal Pkg. Co., Ltd.
"	13	"	34092	D. J. Gillies, Cornwall	1½ " . .	15	"
"	17	"	34093	J. K. Whitelaw, Arnprior	1½ " . .	23	The Wm. Davies Co., Ltd. . .
"	17	"	34094	W. M. Howe, Arnprior	1½ " . .	25	Fowler

DISTRICT OF KINGSTON—

Dec.	2	Lard	33031	A. Maclean, Ontario St., King- ston.	1½ lbs. . .	21	A. Maclean, Kingston
"	21	"	33032	Davies & Co., Princess St., Kingston.	1½ " . .	23	Davies Co., Toronto
"	21	"	33033	P. Haffner, Montreal St., King- ston.	1½ " . .	23	J. Y. Parkhill, Kingston . . .
"	21	"	33036	J. McCulla, Montreal St., King- ston.	1½ " . .	23	Matthews, Peterboro'
"	3	"	33037	Davies Co., Front St., Belleville.	1½ " . .	23	Davies Co., Toronto
"	3	"	33038	G. Pearson, Front St., Belleville.	1½ " . .	23	"
"	4	"	33039	J. Sutherland, George St., Peterboro'.	1½ " . .	23	Fowler, Hamilton
"	4	"	33040	Whiteand & Gillespie, George St., Peterboro'.	1½ " . .	24	Matthews, Peterboro'
"	4	"	33041	P. Connall & Son, George St., Peterboro'.	1½ " . .	24	"
"	4	"	33042	D. W. Porter, George St., Peterboro'.	1½ " . .	24	"

SESSIONAL PAPER No. 14

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-reirac- tometer at 40° C.	Re- Halphen action.	

J. A. RICKEY, INSPECTOR.

Taken from pail marked, 'Matthews' Pure Lard'. Labeled Canada Approved, Establishment 2-A—The Geo. Matthews Co., Ltd.	None.	56·4	50 1	None.	Genuine.
Marked, 'Swift's Silver Leaf Brand', Guaranteed Pure Lard. Inspected and passed Dept. of Agri., U.S. Stamp C. 1451565.	"	64·4	50·5	"	"
Pail marked Pure Lard....	"	56·3	50·2	"	"
Labeled 'Swift's Silver Leaf Brand', Guaranteed Pure Lard. C. 1451118.	"	64·8	50·3	"	"
Labeled 'Rose Brand' Canada Approved. Establishment 2-A. The Geo. Matthews Co., Limited.	"	55·2	50·0	"	"
Labeled 'Matthew's Pure Lard, Hull, Can, Approv'd	"	60·4	50·7	Deep red.	Adulterated; contains cotton seed oil.
Labeled 'Corona Pure Lard. Has no equal. Montreal Packing Co., Montreal'.	"	55·2	50·6	None.	Genuine.
Labeled Corona Brand Pure Lard, without equal. The Montreal Packing Co., Montreal, P.Q.	"	62·3	51·2	"	"
Labeled Pure Family Lard.	"	59·5	50·4	"	"
Labeled Pure Lard 'Imperial Brand'. Fowler's Canadian Co., Ltd.	"	58·6	50·5	"	"

J. HOGAN, INSPECTOR.

.....	None.	55·3	50·2	None.	Genuine.
.....	"	55·0	50·4	"	"
.....	"	53·5	50·0	"	"
.....	"	62·0	50·5	"	"
.....	"	59·5	51·3	"	"
.....	"	59·5	50·4	"	"
.....	"	59·5	50·3	"	"
.....	0·36	52·0	50·0	"	"
.....	"	51·0	49·7	"	"
.....	"	55·3	50·5	"	"

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Date of Collection.	Nature of Sample.	No. of Sample.	Name and Addtess of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF TORONTO—

Dec. 9.	Lard	33351	W. H. Rourke, Penetanguishene	1½ lbs. . .	23	Gunn's, Ltd., Toronto.
" 10.	"	33352	M. J. White, Midland	1½ " . .	23	Collingwood Packing Co., Collingwood.
" 11.	"	33353	Joseph Tippin, Orillia	1½ " . .	23	Wm. Davies Co., Toronto. . .
" 12.	"	33354	A. G. McNabb, Barrie	1½ " . .	23	Collingwood Packing Co., Collingwood.
" 13.	"	33355	H. Poelham, Collingwood.	1½ " . .	23	Canadian Packing Co., London.
" 13.	"	33356	A. S. Tolman, Meaford.	1½ " . .	25	F. W. Fearman & Co., Ltd., Hamilton.
" 17.	"	33357	W. J. Currie, Orangeville	1½ " . .	23	Jos. O'Mara, Palmerston. . . .
" 18.	"	33358	John McCusker & Co., Owen Sound.	1½ " . .	25	The Whyte Packing Co., Stratford.
" 19.	"	33359	C. McCallum & Co., Brampton.	1½ " . .	23	Ingersoll Packing Co., Ingersoll.
" 19.	"	33360	McKay Bros., Georgetown.	1½ " . .	23	Collingwood Packing Co., Collingwood.

DISTRICT OF LONDON—

Nov. 29.	Lard	30442	Cardino Bros., Seaforth.	1½ " . .	22	Fearman & Co., Hamilton . .
" 30.	"	30444	Sturday & Co., Goderich.	1½ " . .	24	" " . .
Dec. 2.	"	30448	Whyte Packing Co., Stratford.	1½ " . .	21	Vendors.
" 4.	"	30455	J. W. Irwin, Clinton.	1½ " . .	25	Ingersoll Packing Co., Ingersoll.
" 5.	"	30458	Wm. Stonemans, Mitchell.	1½ " . .	22	Fowler & Co., Mfrs., Hamilton.
" 20.	"	33395	A. S. Hallman, Berlin.	1½ " . .	25	Ingersoll Packing Co., Ingersoll.
" 23.	"	33396	Jas. Forbes & Son, Woodstock.	1½ " . .	23	" " . .
" 24.	"	33397	Ballentine & Co., Windsor.	1½ " . .	24	Hammond Standish & Co., Detroit, U.S.
" 26.	"	33398	Geo. Steacy & Co., Chatham.	1½ " . .	25	The Whyte Packing Co., Stratford.
" 27.	"	33399	F. C. Toon, London	1½ " . .	24	Geo Matthews Co., Ltd., Brantford.

SESSIONAL PAPER No. 14

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-refrac- tometer at 40° C.	Re- Halphen action.	

H. J. DAGER, INSPECTOR.

Sample taken from large pail. Vendor says he believes to be pure.	None.	57.5	50.6	None.	Genuine.
" " "	"	59.5	50.2	"	"
Sample taken from refrigerator already parcelled.	"	57.5	50.4	"	"
Sample taken from large pail in store.	0.36	57.5	50.4	"	"
Labelled on lid Guaranteed pure and choice.	None.	57.3	50.3	"	"
Labelled on lid Star Brand.	"	57.7	50.8	"	"
Sample taken from large pail labelled Celebrated Pure Lard.	"	63.2	51.4	"	"
Lid of pail is branded Pure Kettled Lard.	"	56.8	50.4	"	"
Pail is labelled 230386 Canada approved.	"	55.9	50.1	"	"
Lid on pail is branded Lilly White; absolutely pure.	"	54.0	50.3	"	"

T. KIDD, INSPECTOR AND H. J. DAGER, ACTING INSPECTOR.

.....	None.	66.0	51.6	None.	Genuine.
.....	"	65.7	51.5	"	"
.....	"	61.0	51.2	"	"
.....	"	60.1	50.8	"	"
.....	0.20	60.5	50.8	"	"
Beaver Brand Pure Lard..	None.	60.8	50.5	"	"
Tub labelled 236907 Canada approved.	"	58.4	50.2	"	"
U.S. inspected and passed, labelled 173 Meat inspector.	0.12	59.7	51.1	"	"
Branded Pure Lard and stamped Canada approved	None.	58.2	50.4	"	"
Branded on lid of tub Pure Lard.	"	61.8	50.9	"	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF MANITOBA—

Dec. 10.	Lard	25660	D. Rice, Brandon	1½ lbs...	30	Swift Co., Chicago, Ill.
" 10.	"	25668	J. F. Price & Co., Brandon....	1½ " ..	25	Not given.....
" 12.	"	25681	S. Reynolds, Winnipeg	1½ " ..	25	Gordon Ironsides Fares, Winnipeg, Man.
" 12.	"	25686	Finch Bros., Winnipeg.....	1½ " ..	25	Not given.
" 13.	"	25688	Wm. Mahoney, Winnipeg	1½ " ..	25	Gordon Ironsides Fares, Winnipeg, Man.
" 13.	"	25690	McDowall & Grant "	1½ " ..	25	J. Y. Giffin, Winnipeg, Man.
" 13.	"	25692	W. J. Bond "	1½ " ..	30	Gordon Ironsides Fares, Winnipeg, Man.
" 13.	"	25694	Duncan & Fea "	1½ " .	35	Not given.....
" 16.	"	25699	T. A. Garland & Co., Portage la Prairie.	1½ " ..	35	Gordon Ironsides Fares, Winnipeg, Man.
" 17.	"	25847	Donnelly's Grocery, Norwood .	1½ " ..	25	Ingersoll Packing Co., Inger soll.

DISTRICT OF CALGARY—

Dec. 9.	Lard.	28866	F. Monk, Calgary	1½ lbs...	50	P. Burns & Co., Calgary....
" 9.	"	28867	"	1½ " ..	50	J. Y. Griffin & Co., Winni- peg, Man.
" 9.	"	28868	Farmer's Meat Market, Calgary	1½ " ..	45	Farmer's Meat Market, Calgary.
" 9.	"	28869	Pitman's Stores, Calgary.....	1½ " ..	50	Pitman's Stores, Calgary....
" 9.	"	28870	Calgary Cattle Co., Calgary...	1½ " ..	30	P. Burns & Co., Calgary....
" 13.	"	28871	Robert Mitchell, Medicine Hat	1½ " ..	50	T. Y. Griffin, Winnipeg, Man.
" 14.	"	28872	Riche & Miron, Lethbridge....	1½ " ..	50	Piche & Miron, Lethbridge..
" 14.	"	28873	P. Burns & Co., Lethbridge...	1½ " ..	50	P. Burns & Co., Lethbridge.
" 17.	"	28874	Capital Mercantile Co., Ed- monton.	1½ " ..	30	Vendors.....
" 17.	"	28875	P. Burns & Co., Edmonton....	1½ " ..	30	"

SESSIONAL PAPER No. 14

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-refrac- tometer at 40° C.	Re- Halphen action.	

A. C. LARIVIÈRE, INSPECTOR.

.....	None.	64·6	51·4	None.	Genuine.
.....	"	62·4	50·8	"	"
.....	"	62·4	51·0	"	"
.....	"	64·6	51·5	"	"
.....	"	64·4	51·3	"	"
.....	"	60·6	51·0	"	"
.....	0·12	62·6	51·0	"	"
.....	None.	61·0	50·7	"	"
.....	"	57·9	50·8	"	"
.....	0·16	57·5	50·6	"	"

R. W. FLETCHER, INSPECTOR.

.....	0·20	62·0	50·8	None.	Genuine.
.....	None.	54·8	51·2	"	"
.....	0·16	64·2	51·7	"	"
.....	None.	64·8	51·6	"	"
.....	"	60·5	51·1	"	"
.....	"	61·5	50·8	"	"
.....	"	64·5	51·2	"	"
.....	"	61·0	50·8	"	"
.....	"	65·8	51·5	"	"
.....	"	59·5	50·6	"	"

8-9 EDWARD VII., A. 1909

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF VANCOUVER—

Dec. 18.	Lard.	34201	C. E. Turner, Vancouver ...	1½ lbs...	25	The Wm. Davies Co., Ltd., Toronto.
" 18.	"	34202	J. F. May "	1½ " ..	30	J. Y. Griffin & Co., Ltd., Winnipeg, Man.
" 18.	"	34203	The Hudson's Bay Co., Van- couver.	1½ " ..	25	Armour & Co., Chicago, U.S.
" 19.	"	34204	The A & C. Grocery Co., Van- couver.	3-lb. pail	50	Frye Bruhn & Co., Seattle, Wash.
" 19.	"	34205	F. Wright, Vancouver.....	3 " ..	60	.....
" 19	"	34206	J. McTaggart "	1½ lbs...	30	Fry Bruhn & Co., Seattle, Wash.
" 19.	"	34207	The H. A. Edgett Co., Van- couver.	2 " ..	30	Vendors
" 20.	"	34208	P. Burns & Co., Vancouver.	3-lb. pail	45	"
" 20.	"	34209	Kelly, Douglas & Co., Van- couver.	3 " ..	45	Caistens Packing Company, Seattle, Wash.
" 20.	"	34210	E. H. McMillan, Vancouver.	" ..	60	G. Y. Griffin Co., Ltd., Winnipeg, Man.

DISTRICT OF VICTORIA—

Jan. 4.	Lard	34806	A.R. Johnston, Nanaimo, B.C.	3 lbs....	65	Frye, Bruhn & Co., Seattle.
" 21.	"	34816	Windsor Grocery Co., Victoria, B.C.	3 " ..	60	" "
" 21.	"	34817	" "	2 " ..	40	Armour & Co., Chicago.
" 21.	"	34820	J. W. Speed, Victoria, B.C....	3 " ..	35	Frye, Bruhn & Co., Seattle.
" 21.	"	34821	" "	3 " ..	60	Griffins & Co., Winnipeg.
" 22.	"	34824	F. P. Wotson, Victoria, B. C..	3 " ..	60	John Morrell & Co., Ottum- wa, Iowa.
" 27.	"	34827	" "	2½ " ..	60	The Wm. Davis Co., Toronto.
" 27.	"	34828	Fell & Co., Victoria, B.C.....	2 " ..	40	Armour & Co., Chicago.
" 27.	"	34829	Saunders Grocery Co., Victoria, B.C.	3 " ..	60	John Morrell & Co., Ottum- wa, Iowa.
" 27.	"	34830	W. D. Wallace, Victoria, B.C.	2 " ..	40	J. Y. Griffin & Co., Vancou- ver, B.C.

SESSIONAL PAPER No. 14

Inspector's Report.	RESULTS OF ANALYSIS.				Opinion of the Chief Analyst.
	Water.	Iodine No.	Butyro-reirac- tometer at 40° C.	Re- Halphen action.	

E. B. PARKINSON, INSPECTOR.

Pure rendered lard taken from 50c. pail.	None.	58·6	50·3	None.	Genuine.
Marked Pure Lard.....	"	60·6	51·0	"	"
Shield Brand marked Pure Lard.	"	62·6	51·5	"	"
Wild Rose Brand marked Pure Lard.	"	61·9	51·0	"	"
Marked Pure Lard.....	"	60·6	50·5	"	"
Not labelled	"	63·2	51·3	"	"
Marked Pure Leaf Lard...	"	61·5	51·2	"	"
No marks on pail.	"	59·1	51·2	"	"
Washington Brand, Pure Lard.	"	64·8	51·9	Deep red.	Adulterated; contains cotton seed oil.
Marked Pure Lard	"	61·9	50·0	None.	Genuine.

D. O. SULLIVAN, INSPECTOR.

Put up in 3-lb. tins.. ...	0·04	65·7	51·8	None.	Genuine.
"	0·20	62·5	51·5	"	"
.....	None.	63·5	51·6	"	"
.....	"	63·0	51·4	"	"
Put up in 3-lb. tins.....	"	64·2	51·4	"	"
.....	"	64·2	57·6	"	"
.....	"	54·2	51·1	"	"
.....	"	64·2	51·6	"	"
Put up in 3-lb. tins.....	0·14	64·2	51·8	"	"
.....	None.	64·2	51·5	"	"

APPENDIX N.

BULLETIN No. 148—HONEY

OTTAWA, February 13, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

DEAR SIR,—I have the honour to report upon a collection of Honey, made in December last. The immediate cause of this collection was a resolution passed by the Middlesex Beekeepers Association, in June, 1907, as follows:—"That this Association would recommend and ask that the Department of Inland Revenue at Ottawa, collect, annually, samples of honey, and that these samples be taken during the autumn or early winter; we would also request that those infringing the Pure Food Act be prosecuted."

I reported to you, on the 13th ult., the results of examination of 253 samples of honey (see Bull. 145), collected in April and May of 1907; and the present report may be considered as supplementary to that one. Its special interest lies in the fact of collection during the winter, in deference to the suggestion of the Beekeepers Association. It is to be presumed that this Association held that there would be greater likelihood of spurious samples being found on the market during the winter months.

It is gratifying to state that the report now submitted shows that strained honey, as found throughout Canada, is mainly a genuine article, true to name.

The following synopsis will bear out the statement:—

	Samples.
Found Genuine.....	135
" Doubtful	3
" Adulterated	2
Sold as Compound	1
	—
Total	141

A memorandum giving details as to the inspection of honey, by this Department, in past years; and a brief account of the nature of the article, is published in Bulletin 145.

I would respectfully recommend the publication of this report as Bulletin No. 148.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF NOVA SCOTIA—

Dec.	3	Honey ...	33475	National Drug Co., Halifax, N.S.	2 lbs.	30	Unknown
"	4	"	33476	T. F. Courtney & Co., Halifax, N.S.	2 "	50	Canadian Honey Co., Halifax, N.S.
"	5	"	33477	Irwin & Son, Halifax, N.S.	2 "	50	National Drug Co., Halifax, N.S.
"	5	"	33478	M. D. Logan, Halifax, N.S.	2 "	50	" " ..
"	5	" ...	33479	A. A. Thompson, Halifax, N.S..	2 "	40	" " ..
"	5	"	33480	E. M. McLeod, Halifax, N.S....	2 "	50	" " ..
"	5	"	33481	Brown Bros., Halifax, N.S.....	2 "	45	" " ..
"	5	"	33482	T. L. Harvey, Wolfville, N.S....	2 "	50	Unknown.....
"	5	"	33483	F. C. Churchill, Wolfville, N.S..	2 "	40	"
"	10	"	33484	A. S. Hutchins, Liverpool, N.S..	2 "	60	National Drug Co., Halifax, N.S.

DISTRICT OF PRINCE EDWARD ISLAND--

Dec.	2	Honey....	31195	Sanderson & Co., Charlottetown.	2 lbs.	60	Upton's, Montreal.....
"	2	"	31196	J. J. Gay & Son, Charlottetown..	2 "	75	F. Beals, Charlottetown....
"	2	"	31197	Johnson & Johnson, Charlotte- town.	2 "	60	Canadian Drug Co., St. John, N.B.
"	4	"	31198	Waugh & Steaves, Summerside..	2 "	75	National Drug Co., Halifax, N.S.
"	4	"	31199	T. Ching, Summerside.....	3 bots.	90	The Fawcett Honey Co., Mem- ramcook, N.B.
"	4	"	31200	A. M. P. Gourlie, Summerside...	3 crks.	75	Canadian Drug Co., St. John, N.B.
"	5	"	31201	Jardine & Bernard, Kensington..	2 lbs.	60	Lyman Sons & Co., Montreal....
"	5	"	31202	A. Keir, Kensington	2 "	75	Dr. Keir, Malpeque, P.E.I.....
"	5	"	31203	G. E. Hughes, Charlottetown....	2 "	60	John Newson, Charlottetown ...
"	9	"	31204	John McKenna, Charlottetown..	2 "	60	Upton's, Montreal.

DISTRICT OF NEW BRUNSWICK—

Dec.	4	Honey. . .	29614	W. H. Bell, St. John, N.B.	3 jars.	65	Leonard Hill, Port Williams, N.S.
"	5	"	29615	The Canadian Drug Co., Ltd., St. John, N.B.	3 "	75	Fairmount & Co., Toronto, Ont.
"	5	" ...	29616	G. S. Wetmore, St. John, N.B. .	3 bots.	60	Miles E. Vanwart, Kingston, Kings Co., N.B.

SESSIONAL PAPER No. 14
OF HONEY.

Inspector's Report.	Water.	Polarization.	Physical Characters.	Opinion of the Chief Analyst.

R. J. WAUGH, INSPECTOR.

Said to be Nova Scotia honey.	25·39	- 6·0	Brown. Clear.	Genuine.
.....	25·20	- 13·3	Light yellow. Mostly crystal- lized.	"
.....	27·86	- 17·0	Light yellow. Clear.	"
.....	28·20	- 12·0	Yellow. Slightly crystallized . . .	"
.....	27·40	- 10·0	Light yellow. Clear.	"
.....	30·20	- 10·0	Yellow. Clear	"
.....	23·10	- 13·5	Yellow. Partly crystallized. . . .	"
Said to be King's County product.	23·80	- 16·0	Yellow. Crystallized almost throughout.	"
.....	24·90	+ 4·8	Brown. Clear.	Contains 17·94 per cent cane sugar. Doubt fully genuine.
.....	29·00	- 9·8	Brown. Tolerably clear.	Genuine.

T. MOORE, INSPECTOR.

.....	18·30	- 19·6	Dark yellow. Crystallized throughout.	Genuine.
.....	21·20	- 11·5	Dark yellow. Partly crystal- lized.	"
.....	17·30	- 15·0	Yellow. Crystallized almost throughout.	"
.....	25·10	- 16·3	Dark yellow. Partly crystal- lized.	"
Warranted Pure Honey	20·70	- 12·3	Brown. Clear.	"
.....	24·50	- 15·4	Dark yellow. Partly crystal- lized.	"
.....	20·50	- 14·2	Light yellow. Crystallized throughout.	"
.....	19·30	- 13·2	Yellow. Clear.	"
.....	19·60	- 16·4	Yellow. Clear	"
.....	19·90	- 17·4	Dark yellow. Crystallized throughout.	"

J. C. FERGUSON, INSPECTOR.

On label, Warranted Pure Honey. New Honey.	22·45	- 15·3	Light brown. Clear	Genuine.
Labelled Pure White Clover Honey	21·25	- 15·6	Pale yellow. Clear.	"
Not labelled	19·25	- 15·8	Brown. Clear.	"

8-9 EDWARD VII., A. 1909

INSPECTION OF

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF NEW BRUNSWICK—

Dec.	11	Honey....	29617	M. E. Grass, St. John, N.B.	3 jars.	68	Fawcett Honey Co., Ltd., Memramcook, N.B.
"	17	"	29618	The Sussex Mercantile Co., Ltd., Sussex, N.B.	3 "	75	Whitfield Harper, Anagance Ridge, N.B.
"	18	"	29619	J. T. Ryan, Moncton, N.B.	3 "	70	The Fawcett Honey Co., Ltd., Memramcook, N.B.
"	21	"	29620	Moores Bros., Campbellton, N.B.	3 "	75	F. W. Fearman & Co., Hamilton, N.B.
Jan.	4	"	29621	W.H. Vanwart, Fredericton, N.B.	3 "	75	The Fawcett Honey Co., Ltd., Memramcook, N.B.
"	4	"	29622	C. Fred. Chestnut, Fredericton, N. B.	3 bots. 2 lbs. }	65	The Canadian Drug Co., Ltd., St. John, N.B.
"	7	" ...	29623	C. A. McKeen, Woodstock, N.B.	3 bots.	75	The National Drug and Chemical Co., Ltd., St. John, N.B.

DISTRICT OF QUEBEC—

Dec.	3	Honey. ..	26334	R. W. Williams, Trois Rivières Platon.	2 lbs.	30	Ludger Poisson, Gentilly.....
"	3	"	26336	O. Carignan & Fils, Trois Rivières, P.Q.	2 "	24	Ludger Rochefort, Becancour. ..
"	3	"	26337	L. P. Normand, 32 Rue de Forges	2 "	70	Sœurs du Précieux Sang
"	3	" ...	26356	O. Carignan & Fils, Trois Rivières, P.Q.	2 "	30	Ludger Rochefort, Becancour ...
"	11	"	26339	O. T. Dion, Commercial St., Levis	1½ "	30	Unknown.....
"	11	"	26340	Alfred Charrier, St. Laurent St., Levis.	1½ "	25	Ernest Dufour
"	11	" ...	26341	Dr. Ed. Morin & Co., Cote du Passage, Levis.	2¼ "	45	Vendor.....
"	11	"	26342	S. Marmet, Cote du Passage, Levis.	6 glasses.	75	Unknown.....
"	11	" ...	26343	Calixte Dion, 67 Rue Fraser, Levis	2½ "	35	Vendor
"	11	"	26375	" "	1 lb ..	20	"

DISTRICT OF ST. HYACINTHE—

Dec.	11	Honey....	27920	Laferrière Frères & Cie., Pierre-ville.	3 glasses.	45	Jos. Turcot, St. Joachim de Courval.
Nov.	29	" ...	27921	Thos. Hébert, St. Hyacinthe ...	3 "	75	Ant. Gervais, St. Thomas d'Aquin.
Dec.	2	"	27922	M. Marsan, St. Jean.....	3 "	45	Upton's, Montreal.....
"	4	" ...	27923	Thom. Cameron Megantic.....	3 "	60	" "

SESSIONAL PAPER No. 14

HONEY—Continued.

Inspector's Report.	Water.	Polarization.	Physical Characters.	Opinion of the Chief Analyst.

J. C. FERGUSON, INSPECTOR.—Continued.

Labelled, Warranted Pure Honey.	20·80	−12·0	Brown. Clear	Genuine.
Put in jars from bulk by vendor..	21·00	−14·8	Light brown. Partly crystallized.	"
No label	19·60	−14·5	" ..	"
Not labelled.....	22·90	−16·0	Yellow. Partly crystallized	"
Labelled, Warranted Pure Honey. The Fawcett Honey Co., Ltd., Memramcook, N.B.	19·30	−13·0	Brown. Clear.....	"
From bulk in ½ gall. bottle. Vendor said sold to him as Ontario Honey, White Clover, by Can. Drug Co., St. John, N.B.	27·40	−14·5	Brown. Clear	"
Supposed to be Ontario Honey. Sold as received from the Nat. Drug and Chemical Co., St. John, N.B.	21·60	− 8·0	Brown. Clear.....	"

E. BELAND, INSPECTOR.

.....	26·25	−11·5	Light brown. Clear.....	Genuine.
.....	20·25	− 9·5	" ..	"
.....	22·10	− 5·5	Yellow. Partly crystallized. ..	"
.....	19·25	− 5·0	Light yellow. Clear.....	"
.....	16·15	− 8·7	Pale yellow. Partly crystallized.	"
.....	19·25	− 1·1	" ..	"
.....	21·02	+ 0·8	" Clear.....	"
.....	18·35	− 6·8	" Partly crystallized.	"
.....	20·85	− 8·8	" ..	"
.....	18·70	− 4·0	" ..	"

J. C. ROULEAU, INSPECTOR.

Not marked.....	28·10	−13·5	Brown. Partly crystallized.....	Genuine.
"	20·10	− 4·0	Yellow. Clear.....	"
Labelled Pure Clarified Honey....	22·30	−14·8	Dark yellow. Partly crystallized.	"
"	21·60	−14·0	" ..	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantit	Cents.	
1907.						

DISTRICT OF ST. HYACINTHE—

Dec.	5	Honey....	27924	Couture & Moore, Sherbrooke....	3 "	30	Mr. Couture.....
"	6	"	27925	Bissounet Frères, Victoriaville..	2 lbs.	26	Not known.....
"	7	"	27926	Chs. Peloquin, St. Hyacinthe....	3 "	35	Vendor.....
"	10	"	27927	A. E. Lamoureux, Contrecoeur...	1 jar.	35	Not known.
"	11	" ...	27928	D. Somerville, Pierreville..	2 lbs.	20	Ed. Courchine, St. Thomas de Pierreville.
"	12	"	27929	J. O. Montplaisir, Drummondville.	1 jar.	30	R. Laroque, N.D. du Bon, Courseil.

DISTRICT OF MONTREAL—

Dec.	12	Honey. ..	31539	A. J. S. Kelly, Montreal.....	2 lbs.	30	S. Mireau, St. Marie Salome, P.Q.
"	12	"	31540	" "	2 "	30	" "
"	13	"	31541	C. Barrette, Joliette, P.Q.....	2 pots.	30	.....
"	16	"	31542	W. Pierre & Bro., 45 Prince Arthur St., Montreal.	2 lbs.	30	Fortier & Monnette, Montreal..
"	16	"	31543	J. T. Mallette, 56 Ontario East, Montreal.	3 jars.	36	" "
"	16	"	31544	" "	3 "	36	" "
"	17	"	31545	W. J. Falle, St. Antoine Market, Montreal.	3 "	54	Edwards, Cornwall, Ont.....
"	18	"	31546	J. N. Prieur, 907 St. Lawrence B., Montreal.	2 lbs.	40	Gunn & Langlois.....
"	18	"	31547	E. Brais, 743 St. Lawrence B., Montreal.	2 "	30	J. Dulude, St. Bruno, P.Q.
"	19	"	31548	James Duncan, St. Joseph St., Lachine, P.Q.	2 "	30	Fortier & Monnette, Montreal..

DISTRICT OF OTTAWA—

Dec.	9	Honey....	34095	H. Armstrong, Ottawa.....	3 bots.	75	Alex. McLaughlin, Cumberland, Ont.
"	10	"	34096	Geo. H. Hopper, Ottawa.....	3 "	75	R. McJanet, Yarm, Canada....
"	10	"	34097	W. Cunningham, Ottawa.....	3 "	90	A Farmer.....
"	10	"	34098	C. J. Provost, Ottawa.....	3 "	75	Michael D. Madden, Sarsfield..
"	11	"	34099	Bryson Graham & Co., Ottawa..	3 sealers.	60	Not known.....
"	11	"	34100	C. Stratton, Ottawa ...	3 "	60	F. J. Castle Co., Ottawa.....
"	13	"	34101	G. W. Armstrong, Cornwall, Ont	3 "	75	Jno. J. Fee, Front St. East Toronto.
"	13	"	34102	Duncan & Co., Cornwall, Ont....	2 lbs.	60	A Farmer.

SESSIONAL PAPER No. 14
OF HONEY—Continued.

Inspector's Report.	Water.	Polarization.	Physical Characters.	Opinion of the Chief Analyst.

J. C. ROULEAU, INSPECTOR.—Continued.

Not marked.....	24.20	— 1.3	Yellow. Clear.....	Genuine.
From a 50 lb. pot....	28.00	— 8.4	Brown. Partly crystallized.....	"
Not marked....	22.30	— 11.8	Yellow. Partly crystallized.....	"
".....	21.50	— 5.0	Brown. Clear.....	"
From a 50 lb. pot....	25.80	— 13.3	Brown, Partly crystallized.....	"
Not marked.....	22.50	— 21.7	Yellow. Slightly crystallized. Fermenting.	"

J. J. COSTIGAN, INSPECTOR.

.....	23.40	— 7.8	Light yellow. Nearly all crystal- lized.	Genuine.
.....	22.40	— 10.5	Brown. Nearly all crystallized..	"
Labelled Upton's Pure Clarified Honey.	24.40	— 11.3	Light yellow. Nearly all crystal- lized.	"
.....	25.20	— 15.8	White. Crystallized throughout.	"
.....	24.20	— 16.6	Dark brown. Turbid.....	"
.....	23.20	— 15.8	Brown. Clear.....	"
.....	24.20	— 10.3	Light brown. Clear.....	"
.....	25.60	— 16.0	Light brown. Nearly crystallized throughout.	"
.....	23.30	— 12.0	Pale yellow. Entirely crystal- lized.	"
.....	23.20	— 15.8	Light brown. All crystals.....	"

J. A. RICKEY, INSPECTOR.)

.....	20.35	— 8.0	Pale yellow. Partly crystallized.	Genuine.
Labeled Pure Extracted Honey...	20.26	— 9.3	Yellow. Partly crystallized.....	"
Not labelled.....	24.00	— 9.5	Brown. Crystallized throughout.	"
Labelled Warranted Pure Extrac- ted Honey from Home of Honey Bee.	21.45	— 12.8	Yellow. Clear.....	"
Not labeled... ..	19.10	— 5.8	Pale yellow. Clear.....	"
".....	18.80	— 13.8	" ".....	"
Labelled Pure Honey	22.40	— 17.4	" ".....	"
Not labelled.....	14.30	— 10.4	Colourless. Entirely crystallized	"

8-9 EDWARD VII., A. 1909
INSPECTION

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF OTTAWA—

Dec. 17	Honey....	34103	E. C. Armand, Arnprior.....	3 tumblers.	54	Ewing & Reid, Alliston.....
" 17	"	34104	T. McCormick, Arnprior.....	3 "	39	Laporte Martin & Co.....

DISTRICT OF KINGSTON—

Dec. 2	Honey....	33034	J. McCulla, Kingston	1½ lbs.	60	Fearman, Hamilton.... .
" 2	"	33035	" "	1½ "	60	Gordon, Woodburn Road.....
" 3	"	33043	G. Pearson, Front St. Belleville..	2 "	45	C. F. Chisholm, Willbridge.....
" 3	"	34044	H. E. Fairfield, Belleville.....	2 "	40	White Co., Toronto .. .
" 3	"	33045	A. J. McCrodan, Belleville.....	2 "	75	Heing & Reid.....
" 3	"	33046	S. Fount, Port Hope.....	3 "	75	.....
" 3	"	33047	W. D. Stephans, Port Hope.....	3 "	55	.....
" 4	"	33048	W. J. Routhy, Peterboro.....	3 "	45	Upton.....
" 4	"	33049	J. S. Sutherland, Peterboro.....	3 "	45	"
" 3	"	33052	Willbridge & Clarke, Belleville..	2 "	75	.....

DISTRICT OF TORONTO—

Dec. 10	Honey ...	33371	Playfor & Preston, Midland	3 lbs.	50	A Farmer.....
" 11	"	33372	A. C. Buchner, Orillia	3 jars.	55	P. A. Porrott, Orillia
" 11	" . .	33373	Thos. Haywood, Orillia	3 "	60	J. G. Wilson, Orillia.....
" 12	"	33374	D. R. Murchison, Barrie	3 "	60	Jas. Turner & Co., Hamilton ...
" 13	"	33375	Godfrey & Hoehn, Meaford.. .	3 "	50	Mr. Donnell, Bay View P.O. . .
" 17	"	33376	R. J. Frampton, Orangeville	3 "	75	McDougal & Lemmon, Owen Sound.
" 18	"	33377	J. R. Brown, Owen Sound. ...	3 "	75	Whitehead & Henther, Walkerton.
" 18	"	33378	Priest & Spragge, Owen Sound ..	2 jars.	60	Mr. Grimolby, Owen Sound
" 19	"	33379	Dawson & Co., Brampton	1 "	45	Haines Bros., Cheltenham
" 19	"	33380	J. McDermid, Georgetown.....	3 "	75	J. McPherson, Norval.....
Jan. 8	"	33400	John Callicott, 895 Queen St. W., Toronto.	5small jars.	50	Vendor

SESSIONAL PAPER No. 14
OF HONEY—Continued.

Inspector's Report.	Water.	Polarization.	Physical Characters.	Opinion of the Chief Analyst.

J. A. RICKEY, INSPECTOR.—Continued.

Sold to Dealer for White Clover Honey, Lid of tumbler marked Extra Fine.	19·30	–12·6	Light brown. Clear.... ..	Genuine.
.....	19·30	–12·9	" "	"

J. HOGAN, INSPECTOR.

.....	19·50	–13·8	Colourless. Crystallized through- out.	Genuine.
.....	18·35	–11·8	Pale yellow. Partly crystallized..	"
.....	23·05	–15·0	Brown. Crystallized throughout.	"
.....	20·60	–17·2	" "	"
.....	15·95	–16·8	" Clear.....	"
.....	19·00	–17·0	" "	"
.....	20·30	–15·8	" Partly crystallized.....	"
.....	16·25	–18·5	" "	"
.....	18·25	–18·8	" "	"
.....	18·75	–16·2	Pale yellow. Crystallized throughout.	"

H. J. DAGER, INSPECTOR.

Called Gilmore brand, not labelled	18·55	–13·8	Pale yellow. Crystallized throughout.	Genuine.
Not labelled....	21·45	– 8·6	" " ..	"
"	19·90	–14·2	Pale yellow. Partly crystallized.	"
Labelled, Upton's Pure Clarified Honey.	23·95	–18·6	Brown. Partly crystallized	"
Sample taken from 4 gall. can....	18·35	–13·3	Pale yellow. "	"
Labelled, Pure Honey.....	25·80	–11·9	Yellow. Clear.....	"
Not labelled	24·30	–14·9	Yellow. Partly crystallized.....	"
Labelled, Pure White Clover Honey	24·20	–16·1	" "	"
Not labelled	22·00	–14·4	Dark yellow. Slightly crystal- lized.	"
"	21·00	–12·4	Yellow. Very slightly crystal- lized.	"
Labelled, Pure Honey. Contents guaranteed not to granulate by vendor.	25·40	–19·0	Yellow. Clear. No printed label.	"

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INSPECTION OF

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Man facturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1907.						

DISTRICT OF LONDON—T. KIDD, INSPECTOR

Nov. 29	Honey ...	30441	John Beattie, Seaforth.....	3 lbs.	45	Masuret & Co., London, Ont....
" 30	"	30445	J. J. McEwin, Goderich....	1½ "	25	George Harris, Dungannon, Perth Co.
Dec. 2	"	30449	Edward O'Flaherty, Stratford ...	3 cups	45	Edward Adams & Co., London, Ont.
" 2	"	30450	McCulley & Hawke, Stratford...	3 "	45	A Farmer... ..
" 5	"	30460	T. S. Ford & Co., Mitchell... ..	3 "	45	Not known.....
" 20	"	35001	Betzner & Co., Berlin	3 jars.	60	Mr. Trussler, Berlin... ..
" 23	"	35002	Fred. Milmine, Woodstock.....	2 "	70	Miss Bond, Eastwood
" 24	" ..	35003	W. J. Cherney, Windsor.....	3 "	75	Purchased at London Fair ; took 1st Prize. Think man's name was Smith.
" 26	"	35004	Wm. Anderson, Chatham.....	3 "	75	W. A. Chrysler, Chatham
" 27	"	35005	Harry Ranaham London.....	3 "	60	E. T. Bainard, London... ..

DISTRICT OF MANITOBA—

Dec. 10	Honey ...	25659	D. Rice, Brandon.	2 lbs.	35	E. D. Smith, Ont
" 10	"	25667	J. F. Price & Co., Brandon..	3 "	90	Codville & Co., Winnipeg, Man.
" 12	"	25680	S. Reynolds, Winnipeg	2 "	55	The White Star Mfg. Co., Winnipeg, Man.
" 12	" ..	25685	Finch Bros., Winnipeg.....	3 "	75	Michigan Clover Honey Co., Detroit, Mich.
" 13	"	25687	Wm. Mahoney, Winnipeg.....	2½ "	75	Macpherson Fruit Co., or A. Macdonald & Co., Winnipeg.
" 13	"	25689	McDowall & Grant, Winnipeg...	3 "	45	B. Davis, St. Thomas, Ont..
" 13	"	25691	W. J. Bond, Winnipeg.....	2½ "	75	Bright & Johnson, Winnipeg...
" 13	" ...	25693	Duncan & Fea, Winnipeg.	2 "	70	Campbell Bros. & Wilson, Winnipeg.
" 16	"	25698	T. A. Garland & Co., Portage la Prairie.	3 "	55	Foley, Lock & Larson, Winnipeg
" 17	" ...	25846	Donnelly's Grocery, Norwood....	2 "	30	White & Co., Toronto, Ont.

1908.

DISTRICT OF CALGARY—

Jan. 10	Honey ...	28876	L. T. Newburn & Co., Calgary ..	3 bots.	55	Imperial Cocoa and Spice Co., Hamilton, Ont.
" 10	"	28877	G. F. & J. Galt, Calgary.....	3 "	45	T. Upton Co., Ltd., Hamilton, Ont.

SESSIONAL PAPER No. 14

HONEY—Continued.

Inspector's Report.	Water.	Polarization.	Physical Characters.	Opinion of the Chief Analyst.

AND H. J. DAGER, ACTING INSPECTOR.

.....	18·20	-14·8	Pale yellow. Partly crystallized.	Genuine.
.....	17·95	-16·3	Brown. Crystallized throughout.	"
.....	21·15	-13·8	" " ..	"
.....	18·65	-15·0	Pale yellow. Clear.....	"
.....	17·30	- 5·0	" Partly crystallized.	"
Not labelled	21·20	- 9·2	Light yellow. " ..	"
"	24·40	-15·7	Yellow. " ..	"
"	23·20	- 8·1	Light yellow. Crystallized throughout.	"
"	21·40	-15·3	Yellow. Partly crystallized	"
"	21·30	-13·0	" " ...	"

A. C. LARIVIERE, INSPECTOR.

.....	22·25	-13·2	Dark brown. Partly crystallized.	Genuine.
.....	18·70	-14·2	Pale yellow. Clear	"
.....	23·63	+ 4·3	" "	Contains 17·5 per cent. cane sugar. Doubtful.
.....	19·35	-14·0	" "	Genuine.
.....	20·35	-15·2	Brown. Partly crystallized.	"
.....	21·15	-16·8	Pale yellow. "	"
Ontario Clover Honey.	20 10	+25·0	" Clear.....	Contains 32·56 per cent. cane sugar. Adulter- ated.
Royal Shield Honey.	17·85	+26·2	" "	Sold as a mixture
.....	22·55	-10·9	Brown. Partly crystallized.....	Genuine.
.....	20·15	-16·5	Light brown. "	"

R. W. FLETCHER, INSPECTOR.

.....	22·7	-12·4	Yellow. Partly crystallized	Genuine.
.....	19·25	-12·2	Light brown. "	"

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INSPECTION OF

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	
1908.						

DISTRICT OF CALGARY—

Jan.	10	Honey....	28878 Macpherson Fruit Co , Calgary..	3 "	45	T. Upton Co., Ltd., Hamilton, Ont.
"	10	" ..	28879 Georgeson & Co., Ltd., Calgary..	3 "	90	Pacific Coast Syrup Co., San Francisco, U.S.
"	10	"	28880 Campbell, Wilson & Horn, Win- nipeg.	3 "	50	T. Upton Co., Ltd., Hamilton, Ont.
"	13	"	28881 Medicine Hat Trading Co., Medi- cine Hat.	3 "	60	" " ..
"	14	" ...	28882 Hudson Bay Co., Lethbridge, 3 Alta.	"	75	Bruce Davis, St. Thomas, Ont ..
"	14	" ..	28883 The Bentley Co., Lethbridge, 3 Alta.	"	1.05	The Pacific Coast Syrup Co., San Francisco, Cal.
"	..	"	28884 Capital Mercantile Co., Edmon- ton.	3 "	60	T. Upton Co., Hamilton, Ont...
"	..	" ...	28885 Hudson Bay Co.	3 "	90	Bruce Davis, St. Thomas, Ont ..

1907.

DISTRICT OF VANCOUVER—

Dec.	18	Honey...	34211 C. E. Turner, Pender St., Van- couver.	3 jars.	75	H. L. Johnson, Chilliwack, B.C.
"	18	"	34212 J. F. May, Pender St., Van- couver.	3 "	75	J. Reagh, Ladner, B.C.. ..
"	18	"	34213 The London Grocery, Granville St., Vancouver.	3 "	45	The Pacific Coast Syrup Co., San Francisco, U.S.
"	18	"	34214 Hudson Bay Co., Granville St., Vancouver.	3 "	75	O. L. Charlton, Victoria, B.C...
"	19	"	34215 H. A. Howell & Co., Granville St., Vancouver.	3 lbs.	65	Garcia Maggini, San Francisco..
"	19	"	34216 H. J. Hampton, Granville St., Vancouver.	3 jars.	75	O. L. Charlton, Victoria, B.C...
"	19	" ...	34217 H. A. Edgett Co., Hastings St., Vancouver.	3 "	75	J. Fyfe Smith.....
"	20	" ...	34218 Geo. Wagg, Hastings St., Van- couver.	2 lbs.	40	San Diego Honey Co., San Fran- cisco.
"	20	"	34219 W. H. Moore, Cordova St., Van- couver.	3 jars.	75	Not known....
"	20	"	34220 The Dom. Grocery, Water St., Vancouver.	3 "	75	Seattle & Puget Sound Packing Co., Seattle, Wash.

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HONEY—Continued.

Inspector's Report.	Water.	Polarization.	Physical Characters.	Opinion of the Chief Analyst.

R. W. FLETCHER, INSPECTOR.—Continued.

.....	19.65	— 13.8	Light brown. Partly crystalline.	Genuine.
.....	21.10	— 13.8	Yellow. Clear.....	"
.....	21.30	— 15.2	Light brown. Partly crystalline..	"
.....	18.50	— 20.5	" " ..	"
.....	19.10	— 9.5	Colourless. Crystallized through- out.	"
.....	20.10	— 14.0	Yellow. Clear.....	"
.....	19.40	— 17.8	Light brown. Partly crystallized	"
.....	10.16	— 8.5	Colourless. Crystallized through- out.	"

E. B. PARKINSON, INSPECTOR.

.....	24.60	— 9.7	Dark yellow. Nearly all crystal- lized.	Genuine.
White Clover Brand, guaranteed pure.	22.20	— 6.3	Yellow. Clear.....	"
.....	23.20	— 15.7	" " ..	"
.....	21.00	— 9.8	Dark yellow. Clear..	"
Imported in bulk and bottled by Vendor. No marks on can.	22.20	— 15.5	Yellow. " ..	"
Marked Chilliwick Honey, guaran- teed pure.	22.40	— 6.0	Dark yellow. " ..	"
Imported from Honolulu.....	21.50	— 22.5	Yellow. Slightly crystallized....	"
Wild Rose Brand taken from 20 lb. can.	26.80	— 33.0	Brown. Muddy and dirty; flies in it.	May contain invert sugar; is not changed by acid treatment; doubtful.
Labelled Choice Honey....	25.80	+ 66.0	Yellow. Chiefly crystallized....	Contains glucose syrup, adulterated.
Labelled Pure Honey.....	23.40	— 12.3	Yellow. Clear ..	Genuine.

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INSPECTION

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.
				Quantity.	Cents.	

DISTRICT OF VICTORIA—

1908.						
Jan.	4	Honey....	34804 Geo. S. Pearson & Co., Nanaimo, B.C.	1½ lbs.	25	C. S. Stevens, Nanaimo, B.C....
"	21	"	34818 Windsor Grocery Co., Victoria, B.C.	2 "	75	W. R. Armstrong, North Saanich, B.C.
"	21	"	34819 " " ..	2 "	70	E. F. Robinson, Victoria, B.C...
"	21	"	34822 J. W. Speed, Victoria, B.C.....	2¼ "	60	T. B. Pearson, " ..
"	21	"	34823 " "	2½ "	75	F. J. Hughes, " ..
"	22	"	34825 F. P. Watson, "	2¼ "	75	Garcia Maginn, San Francisco..
"	22	"	34826 " "	2¼ "	75	Pacific Coast Syrup Co., San Francisco.
"	27	"	34831 Saunders Grocery Co., Victoria, B.C.	2¼ "	75	O. L. Charlton, Victoria, B.C..
"	27	"	34832 " " ..	2¼ "	75	John Stade, Chilliwack, B.C....
"	27	"	34833 W. O. Wallace, Victoria, B.C....	2¼ "	75	Mrs. White, Sidney, V.I.....

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OF HONEY—*Concluded.*

Inspector's Report.	Water.	Polarization.	Physical Characiers.	Opinion of the Chief Analyst.

D. O. SULLIVAN, INSPECTOR.

.....	17·95	— 0·5	Pale yellow. Partly crystallized.	Genuine.
.....	20·50	— 2·0	Light brown. " ..	"
.....	17·75	— 11·8	Pale yellow. Clear.....	"
.....	20·05	— 3·4	Brown. Partly crystallized.....	"
.....	17·90	— 4·0	" "	"
.....	21·65	— 16·1	Light brown. Partly crystallized.	"
.....	15·90	— 17·3	Pale yellow. Clear.....	"
.....	16·35	— 2·0	Brown. Crystallized throughout.	"
.....	24·15	— 20·0	Brown. Partly crystallized.....	"
.....	16·20	— 2·5	" "	"

APPENDIX O.

BULLETIN No 149—THE INSPECTION OF DOMESTIC WELLS

OTTAWA, March 23, 1908.

W. J. GERALD Esq.,
Deputy Minister of Inland Revenue.

SIR,—Two established facts regarding typhoid fever, and enteric fevers generally, are the following :—1st, the contagion of these fevers is essentially water-borne ; 2nd, they are characteristic of the Country rather than the City.

It is true that, when one case of typhoid fever originates in a city, we may generally expect to find it not a solitary case ; indeed, a more or less extended epidemic is the usual history. In country places, it is on the contrary, quite usual to find the malady restricted to individual families ; and most physicians, having large country practice, are acquainted with households in which a more or less continuous succession of fever patients are found from one year's end to another.

It requires no great ingenuity to explain these phenomena. They are just what one might expect, who is at all well acquainted with the conditions of domestic water supply.

The procuring of a satisfactory supply of water ; the maintenance of such supply in a state of purity ; and the more or less frequent inspection of the article, to ascertain its character, are matters which must chiefly interest the localities concerned.

When, as in the case of most cities and towns, the municipal supply is obtained from a single source, the problem of inspection becomes a comparatively simple one.

It is otherwise with smaller towns and villages, and with farms, where wells, usually the property of individuals are in use.

It is true that the widespread danger to health and life which results from the pollution of the single supply, in the case of a city or town, does not obtain in the case of wells. Excepting the wells of public schools, hotels, and a few of more or less public character, the danger is usually restricted to a single family. But wells supplying lodging houses, eating houses, factories, and especially bakeries, breweries and creameries, must not be forgotten.

While it is practicable and sometimes not difficult to effectively protect from pollution the river, lake, or other source of city supply, the protection of well supplies is much less easy. This is partly due to their great number, partly to their usually being placed in close proximity to the house, stables, privy, &c., and chiefly to the ignorance and thoughtlessness of those who use them.

The chief danger of water pollution lies in the readiness with which sewage may find entrance to an otherwise satisfactory supply.

The term *Sewage* has primary reference to the waste water carried by the sewers of towns having systematic drainage. It is applied generally to water rendered impure by having dissolved in it, the soluble matter from manure, privies, or household waste. It is characterized by both organic and inorganic impurities. The organic matter in sewage is partly living (microbial), and partly non-living (albumin, urea, &c.).

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These contents of sewage are not necessarily poisonous, in the strict sense ; but, among the bacteria there may be those of specific disease (typhoid, diphtheria, &c.) In any case, sewage is an objectionable and disgusting constituent of water intended to be used for drinking and cooking, and it is dangerous, even if not actually toxic.

The organic matters of sewage are changed in character, and may even be completely destroyed, by filtration through sand or gravel, charged with such bacteria as are always found in what we may call *normal* conditions.

The characteristic feature of the most objectionable component of sewage, is its nitrogen. In whatever form this may originally have been present (urea, albumin or other proteid, &c.) it turns up under the influence of efficient filtration, as nitric acid, or may be completely removed, by the agency of plant life.

The inorganic impurities of sewage may be in part removed (phosphates, sulphates) but the chlorides remain.

Common salt (chloride of sodium) is the most characteristic and constant inorganic ingredient of sewage. It is present in most human food, is fed to cattle, horses, &c., as such ; and in consequence of this, it finds its way into the urine and faeces, and into dish water and general household slops. It persists in sewage, even after this has been, as already described, purified by filtration. Hence the presence of chlorides in drinking water cannot be taken as a conclusive proof that such water is unfit for food. We may go so far as to say indeed, that no naturally occurring water is free from chlorides.

It remains true, however, that the ground water of every locality is characterized by a certain limit of chlorine (in chlorides), and any considerable increase in this normal limit, especially if it is a fugitive or temporary increase, must be held to indicate pollution by sewage, unless other explanation can be furnished.

The reasonableness of this statement will appear if we make a brief study of the conditions of well supplies.

In March, 1900, the writer presented this subject in an address to the Ontario Provincial Health Association, and may be permitted to make some quotations from that address.

'When rain falls to the earth it is either absorbed by soakage, or it flows along the surface to lower levels. Usually both flow and absorption take place, but the ratio between the quantity carried off by surface flow, and that absorbed, varies with the nature of the soil, the degree of slope, and other conditions.

When the surface is nearly level, and porous, as is the case with ordinary arable land, most of the water will disappear by soakage, and if the rainfall is heavy, the ground will be wetted to a great depth.

In the diagram (Fig. 1) the dotted portion represents a layer of porous soil, S—(which may be sand, loam, gravel, etc.), underneath which lies a non-porous layer, C

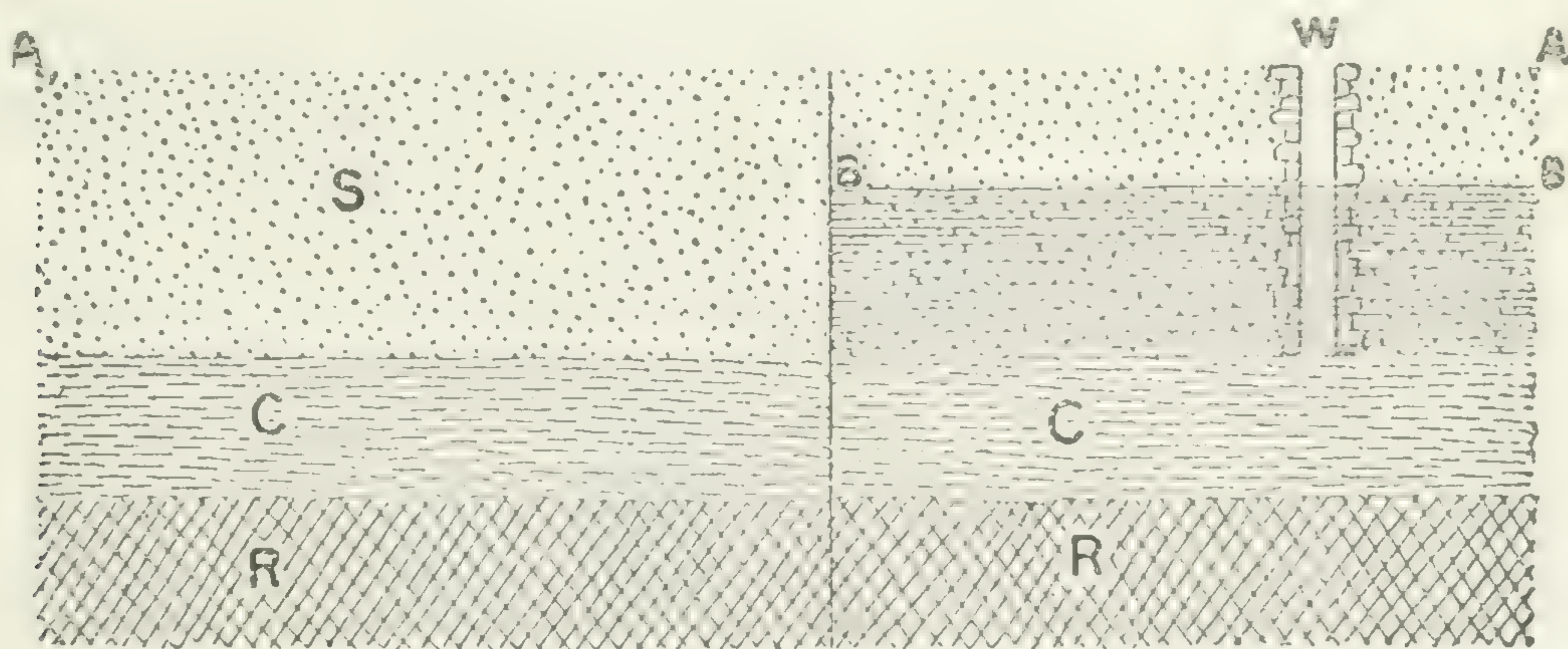


Fig. 1.

(clay), represented by short lines, and underneath this again is a layer of rock—R. The rain which falls on the surface A, will gradually sink through the porous soil till it reaches the impermeable clay ; and shortly after the rain ceases, we may have the state

of things represented at the right hand side of the diagram, which shows the porous soil thoroughly soaked from the surface of the clay up to the level B. This last is the so, called *ground-water level*; and it is evident that the depth of the ground-water level-below the surface level, will vary with the rainfall, and with the thickness of the stratum S: will be highest after heavy rain, and lowest after prolonged drought.

For every region an average may be struck, which is known as the mean annual ground-water level, and we may suppose B to represent this mean level for the area under consideration. If now, a well be sunk, as at W, to the clay, this well will contain water to the depth of the average ground water of the locality. If the well be carried lower, *i.e.*, into the clay, the result will not be to change the character of the water, but merely to enlarge the storage capacity of the well. Extensive areas of level land, as in prairie regions, beaver meadows, etc., answer to the conditions described; but certain other characteristics of ground-water must be considered.

Ground-water is never stagnant, but is moving more or less rapidly towards some line of lower level, where a brook, or river, or lake will generally be found. In Fig. 2, D represents a section of a stream, whose waters will evidently rise and fall with the level of the ground water, which supplies them; and we must discriminate between this rise and fall, which is always gradual, and that sudden rise, of short duration, which results from the surface flow immediately following heavy rain.

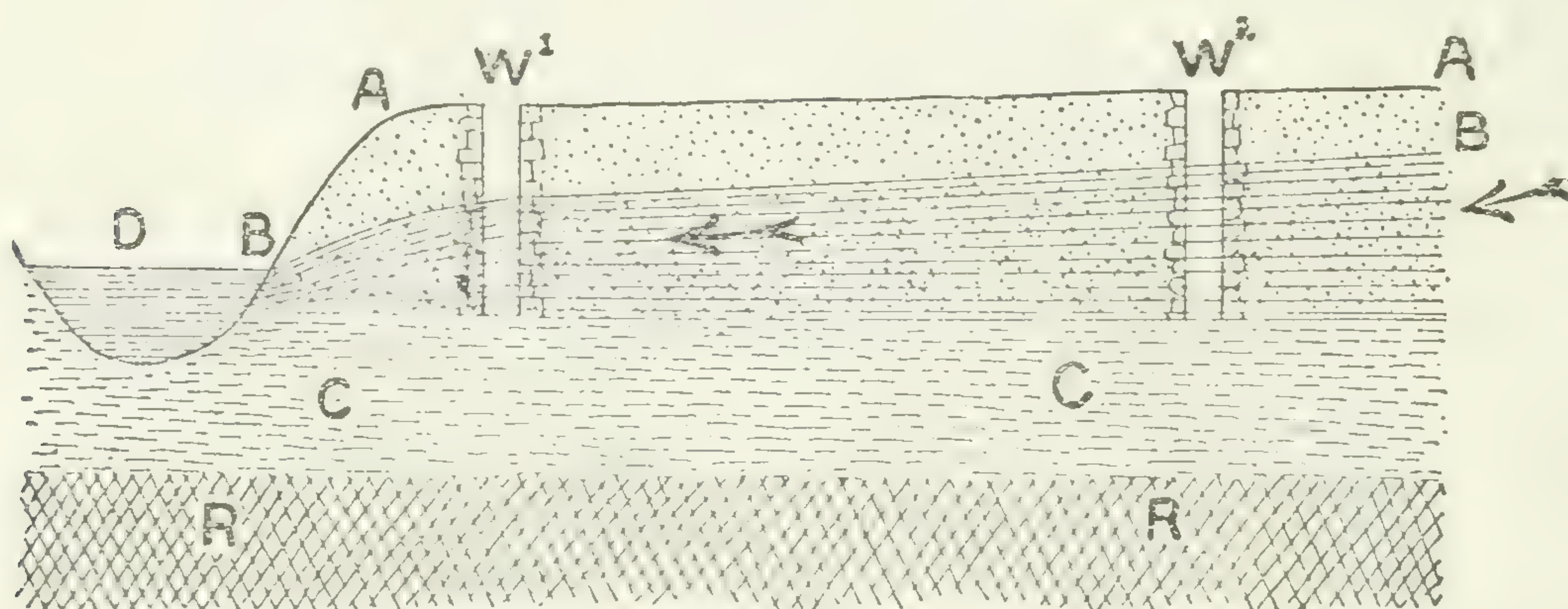


Fig. 2.

The flow of the ground-water will be in the direction indicated by the arrows, *i.e.*, at right angles to the course of the stream, and the line B B, will be a gradually sloping one, so that the well W¹ will contain less water than W² at the same time, although the wells may be of the same depth, and penetrate identical strata of sand, gravel, etc.

It must not, however, be supposed that stratification of so simple a type as I have described, is at all common. Soil, by which I mean everything that is not rock, has resulted essentially from the operation of chemical and mechanical forces upon solid rock. The chief of these forces have been, (1) the freezing of water in the pores of the rock, thus breaking it up; (2) the action of rain; (3) the alternate expansion and contraction by heat and cold; (4) attrition of stone upon stone at the bottom of rivers and lakes; (5) the movement of large ice masses (glaciers); (6) solution of certain rock components, with the consequent falling apart of the residue; (7) action of the roots of plants, which action is both mechanical and chemical; (8) chemical action by oxidation, formation of carbonates, etc. Many of these changes have taken place under water, and every part of the earth's surface has again and again been the bottom of lake or sea, so that soil formed by the means described, does not necessarily remain on the spot which produced it, but may lie hundreds of miles away. Thus, soils which have resulted from the attrition of rock masses in the regions round about Algoma, now cover the fields of Southern and Eastern Ontario. This sort of thing has happened the world over; and the carriers of these immense masses of clay, sand, gravel and boulders, have been ocean and river currents; but above all glaciers and icebergs.

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An iceberg is not a large block of clean, pure ice, but a section of a glacier, broken off by the lifting power of the ocean when the moving mass has been so far thrust into its waters that their buoyancy overcame the strength of the ice, and a huge mass snapped off, rose to the surface, and was carried out to sea. This ice mountain contains, frozen into it, perhaps thousands of tons of rock detritus. It floats out to sea, and wherever it melts, this soil-forming material is deposited, perhaps forming a heap or hill, perhaps being strewed along the course of the floating bergs. After a period of submergence, which may be hundreds of thousands of years in duration, subterranean forces cause, what was so long sea bottom, to become dry land; and we can imagine the condition of things described without too much difficulty, since a little observation of regions quite accessible to us, shows us very marked traces of the period itself. Of course the influence of new forces comes into play on what is now dry land. Atmospheric effects, vegetable and animal life, sunshine and storm play their part in altering the surface; and in the end this comes to be just what we find it, the very ground upon which we build our houses and in which we dig our wells.

In Fig. 3 we have a somewhat more complex section diagrammed, representing a state of things much more usual than the very simple conditions described in Figs. 1 and 2.

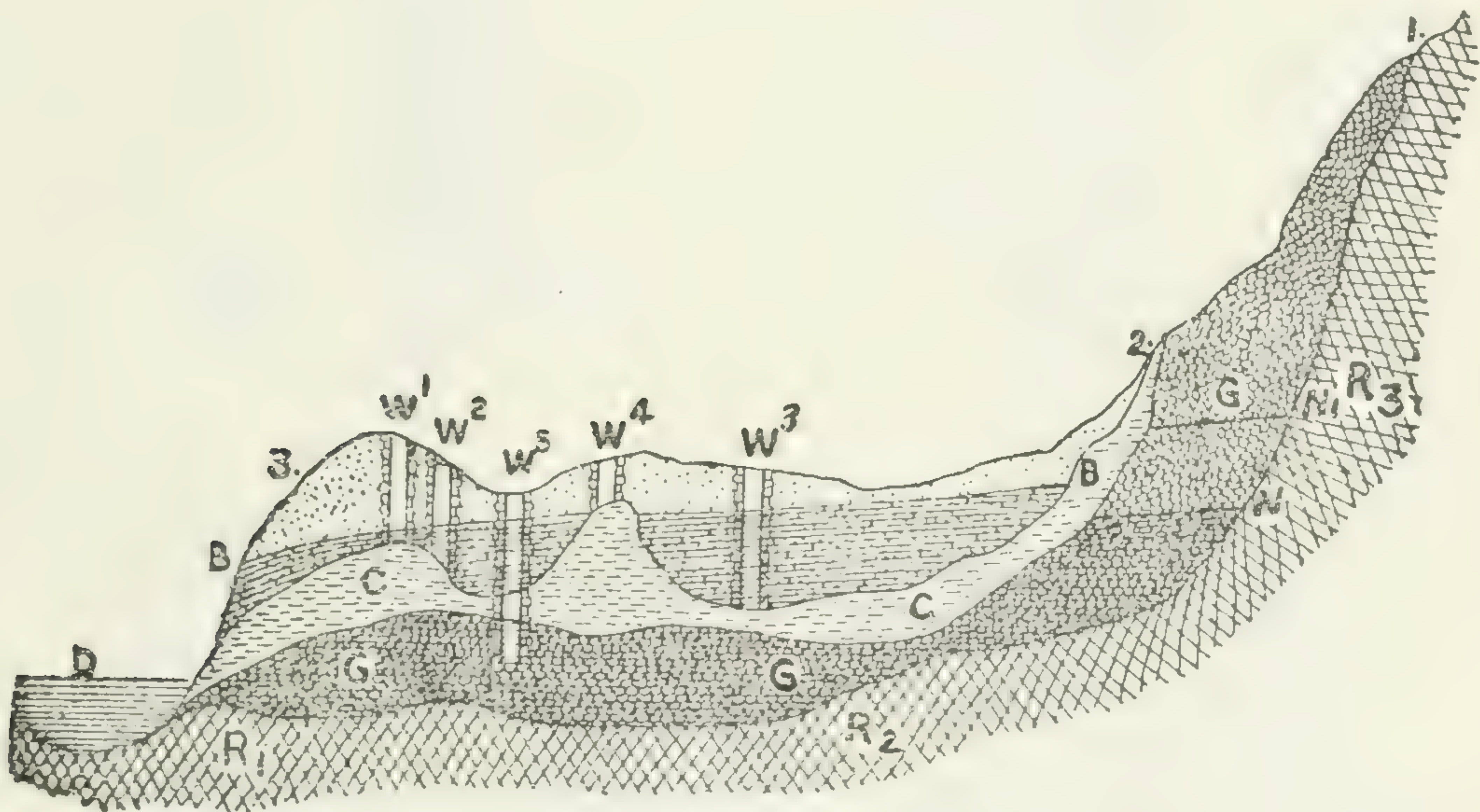


Fig. 3.

Here we have the rocky substratum *R*, more or less contorted throughout, and upheaved as a mountainous ridge at *R*³. Conformable to the surface of the rock, but of varying thickness, we have a stratum of gravel, *G*, which crops out on the surface between 1 and 2. Lying on this gravel is a layer of clay, *C*, which varies in thickness, and comes to the surface at 2. Overlying this, is the soil, *S*. The line *B*¹*B*², represents, as before, the mean level of ground water, with a gentle slope towards the drainage stream *D*. The rain, which falls on the region 2 to 3, supplies this ground water, which is tapped by the wells, *W*¹, *W*², *W*³. It is at once evident why a well at *W*⁴ remains dry, or only contains water when the season is abnormally wet. The rainfall on the rocky surface to the right of 1, is of course not absorbed to any great extent, but flows down to the gravelly surface between 1 and 2, and together with the rain falling on this surface, is absorbed by the gravel, and finds storage in it between the rock (*R*) and the clay (*C*). Here it accumulates in a second and lower water-bearing stratum, and the normal level for this water supply may be represented by the line *N*. Now it is evident that if any of the wells *W*¹ to *W*⁴ be continued through the clay, they will obtain a water supply from this lower gravel; and the well *W*¹ can get a permanent supply from no other source. *W*⁴ then becomes an illustration of a so-called 'deep well,' and in wet seasons, when the level rises above the normal *N*, say as high as *N*¹, this well will over-

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flow, or becomes what is called a 'flowing well,' on the principle that water rises to the same height in all tubes connected with a common reservoir.

If I have succeeded in making my subject understood, we are now prepared to begin the special enquiry that I wish to propose for your consideration. Up to this point, I have merely defined and illustrated certain terms that I shall have to use repeatedly in the sequel. To recapitulate briefly, I have spoken of three classes of wells, viz.: those fed from the normal groundwater, those fed from a deep or secondary water supply, and those so-called surface wells, which, like W^1 in Fig. 3, receive soakage water only, and contain a supply only when the ground in the immediate vicinity is wet, as in Spring and Autumn. All the ground-water wells diagrammed, are represented as dug down to subjacent clay; but this is not a necessary condition. W^3 for example, would be none the less a ground-water well, had it been made no deeper than W^1 and W^2 . We have now to consider the character of the water which fills these three types of wells.

Rain water is not the chemically pure substance which it is often described as being. In the later stages of a prolonged rainfall, it is indeed very nearly pure, but the first portions of every shower wash out from the air, not only the gaseous impurities, which are the products of animal and vegetable decay—(Ammonia, compound or organic ammonias, sulphuretted hydrogen, etc.)—but also those solid particles, rich in microbial life, which form the dust of the air, and are partly organic and partly inorganic in character. This rainwater, falling upon the surface of the ground, flows along this surface, or soaks into it, taking momentarily into solution more and more of the soluble matters with which it comes into contact. These are partly inorganic salts, chlorides, sulphates, carbonates, silicates, etc.—and partly organic matters of more or less complex nature, the products of the decay of vegetable and animal matter. If, for example, in Fig. 3, the region 2 to 3 is a cultivated farming country, somewhat sparsely inhabited, the organic impurities will chiefly be of a vegetable kind—rotting vegetation, the manure of the fields, etc.; but if it be a village or town, the organic matters will be more largely of animal, and especially of human origin. To these waste products the term sewage is properly applied. The ground-water of this region may be, therefore, much less pure than was the rain water that fell on the surface gathering-ground. I say *may be*, for reasons which will be presently given.

We may dismiss the *inorganic* impurities with a word, by saying that, unless they are present so largely as to give a distinct taste to the ground-water, they are rarely of a kind to be dangerous to health. The *organic* matters must be more carefully considered. If they have originated in normal decay, they may be harmless from the point of view of health, even though far from appetizing when we remember their origin; but if they come from those conditions of decay which we call *disease*, they may be actively poisonous, and may contain the living germs of specific diseases, such as fevers, diphtheria, cholera, etc.

Percolation, through a fully aerated soil, has, however, the effect of bringing about purification of such water by the process of oxidation, a process by which organic matter is changed and microbial life destroyed. That this should be effective, the water must filter through several feet of sand or gravel; and although it is impossible to fix a definite minimum limit to the depth of such a natural filter, it is safe to say that we should insist on ten feet, at least, and prefer as much more as we can get. To this end it is necessary that the upper ten feet of the wall of a well should be made quite impervious to water, and the accompanying diagram shows how such a construction can be brought about.

A well should be so constructed that no water could find entrance to it without filtration through a depth of soil, at least equal to the vertical distance between the ground level, and the lowest level of ground-water. To insure this it is necessary to have the mouth of the well raised a foot or more above the surface of the surrounding soil, and to have the brick (or stone) lining of the well backed up by a layer of puddled clay, a foot or more in thickness, and extending continuously from the level of the ground water quite up to the mouth of the well.

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DIAGRAM of well: showing a backing of puddled clay or other impermeable material between the brickwork and the porous strata through which the well is dug.

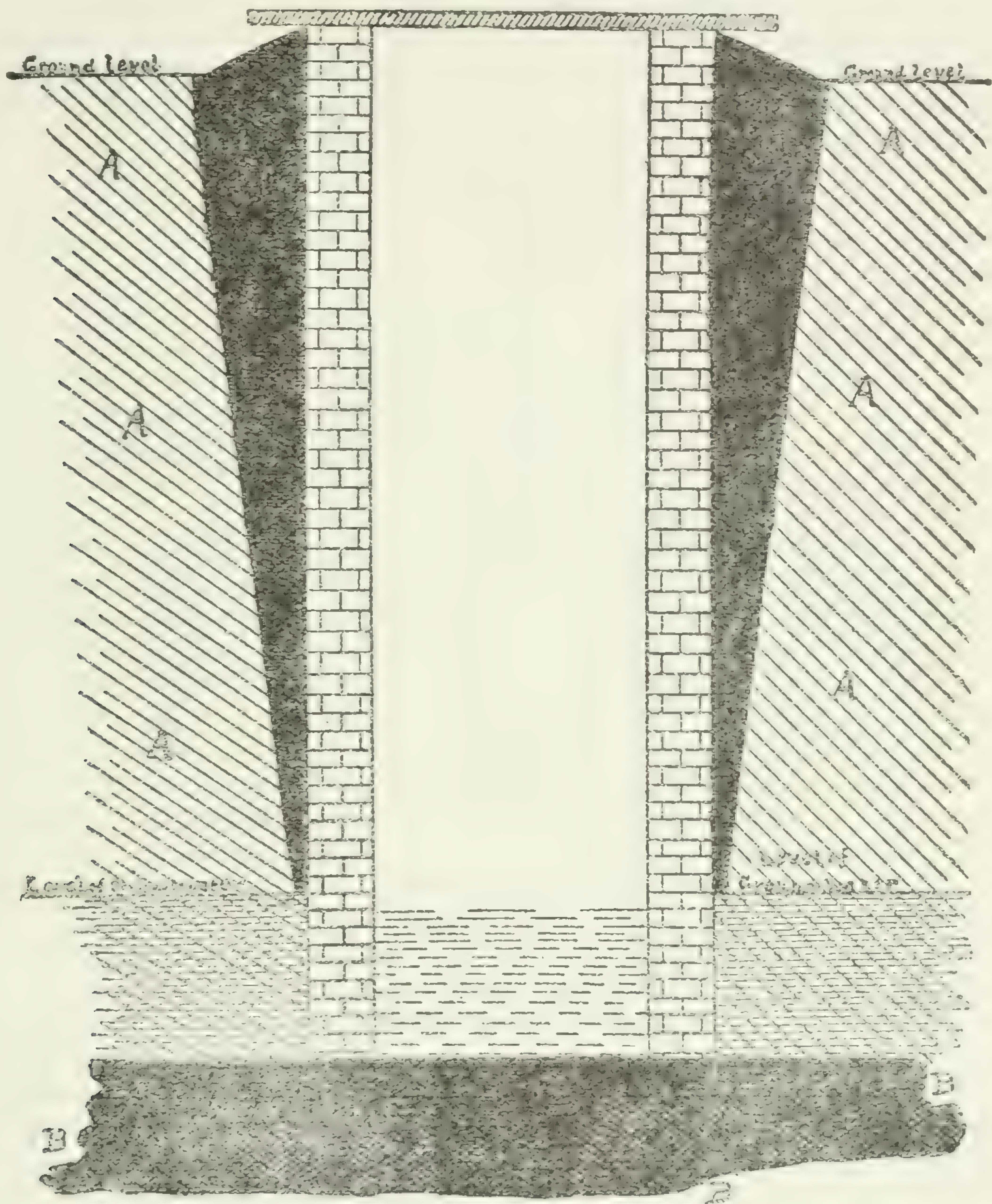


FIG. 4.

A—porous strata, such as sand, gravel, loam, shale, etc. B—impervious stratum, such as clay, rock without flaws, etc.

The accompanying diagram will serve to explain what is meant. By this construction surface water is prevented, by the impermeable clay backing, from getting entrance to the well until it has percolated through the earth to the line of level of the ground-water.

It will be quite clear that no one of the wells in Fig. 3 can be free from unfiltered, and consequently dangerous water, unless this precaution is taken, since even those which reach the ground-water may be polluted by the soakage of unfiltered surface water.

If now we study the gathering ground 1 to 2 in Fig. 3, we have a wild, rocky, and probably unsettled tract of land, free from animal impurity, and comparatively free from vegetable decay. Moreover, its distance from the point at which the water collected on it is used (W^2), ensures thorough filtration, and we can see at once why the water of this deep stratum should be eminently pure and wholesome. Such water is, for obvious reasons, apt to contain more mineral matter in solution, and may even con-

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form to the type of a true mineral water. Unless this be the case, it is evidently a very desirable domestic supply, and wells like W⁵ are always to be preferred when attainable. Even these, however, must be protected against soakage contamination, to which they are just as liable as those of any other type. This study has shown us that shallow wells, obtaining as they do, their supply from unfiltered soakage can never be safe for domestic use, although favorable circumstances may prevent them from becoming actively disease-producing; that ground-water wells, if properly protected from local contamination by soakage, are generally safe; while deep water wells, guarded from local soakage, are safest of all.

This study of well-water, in its origin, makes it quite easy to understand why the water contained in one well may be so different from that contained in other, and perhaps, contiguous wells.

Large towns and cities, as a rule obtain their water supplies from some single source, so that each family in a city of say 5,000 families is supplied with water of the same kind as the rest. It consequently becomes a matter of small cost to each family, to take care of this common source of supply, to have it examined from time to time, chemically and otherwise. There is generally a Board of Water Commissioners appointed to look after the matter, and an engineer whose special duty it is to see to the protection of the supply and its proper distribution.

Compare this with the case of 5,000 families resident in the country. It is probable that these obtain their supply from 5,000 different wells, each having its own peculiarities of situation and protection, and each well having a special interest only to the particular family drawing water from it. If the owner of one of these wells desires to have it examined with a view to determining its purity, the total cost of such examination falls upon himself, and any opinion procured by him, has no value for his neighbours, and does not help them to a conclusion as to the purity of their wells.

Can no way be devised whereby useful information regarding the safety of country wells may be obtained, which will be comparatively inexpensive, and therefore practicable? This is the question which I seek to answer affirmatively.

In the first place we may conclude that normal ground-water is a safe source of supply. Owing, however, to the fact, that the soil and sub-soil of one locality differs from that of another locality in nature of constituent materials. their depth, compactness or porosity; contiguity to neighbouring heights of land, or to swamp; as well as in amount of annual rainfall, we cannot expect ground-water to have the same characters everywhere. What we may expect is that in a given geological and topographical area, the ground-water will have a certain definite character. If the soil consist largely of limestone *debris*, we shall find bi-carbonate of lime in the water, if gypsum characterize the soil of the locality, we shall find sulphate of lime in the water, if chlorides be present in the soil, then chlorides will be found in the water, and so on. In a neighbouring area, separated, say, by a ridge of granite from the first, and having a soil resulting chiefly from the weathering and disintegration of granite, we shall find a ground-water much softer than the first, and having small quantities of silicates, and other products of the disintegration of granite in solution. Now all the wells, and there may be hundreds of them, which are dug into this ground-water, will fall into a class by themselves, and exhibit common characters, provided that local soakage is prevented and the water they contain be the uncontaminated ground-water of that region. How then will an individual well be affected, in whose case sewage finds entrance? Organic matter will increase, and especially will this be true of nitrogenous organic matter: phosphates and chlorides will be increased, nitrates and nitrites may be found in it, and a bacteriological examination may reveal the presence of the colon bacillus. To determine all this, a full analysis is of course needed. What I propose to do, is to confine attention to one characteristic, and to select that one which is most surely and certainly determined. This I find to be the *Chlorine in Chlorides*.

The determination of chlorine, in chlorides, is one of the simplest and most definite estimations that a chemist can be called upon to make. Owing to the presence of common salt (chloride of sodium) in human food, and its use by domestic animals, it is always

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found in sewage, so that any notable admixture of sewage with a well water, at once raises the chlorine percentage.

Chlorine is, however, invariably present in normal ground-water, and the question arises for each region: "How much chlorine is normally present in the ground-water of this locality?" Of course the answer can only be given after analysis of normal samples, but once it is known, any marked variation from that standard, stamps a well of that region as suspicious, and justifies discontinuance of its use until fuller examination can be made. It must not, however, be forgotten that contiguous wells, like W^2 and W^5 in Fig. 3, may obtain their water from entirely different sources, so that it becomes necessary to take depth, and other factors into consideration. The lower or second water-bearing stratum may have a very different normal content of chlorine from the first, or ground-water proper; but its number will also be a fixed one, and if once known, it will be as easy to detect any sewage contamination in this kind of well as in the other.

It is also to be noted that the normal chlorine number for a given area, will vary from month to month, and will be especially affected, by unusually heavy rainfall, or by prolonged drought. But experience shows that variations, due to these causes, are insignificant in comparison with those resulting from sewage contamination.

For many years past I have endeavoured to put this method to the test of experiment, and for that purpose I have collected personally and by deputy, over 730 samples of well water, chiefly within the drainage area of the Ottawa Valley. The difficulties which lie in the way of any single individual's accomplishment of so gigantic a task as this, are almost insurmountable; and I can only hope to illustrate the subject in a very imperfect way from the data in my possession. The first difficulty is to obtain samples which represent the normal ground-water, and the normal deep water supply or supplies. Very few country wells are protected against surface soakage by the method indicated in Fig. 4, and I may say here, that I think the Provincial governments might profitably entrust to certain of their officials whose work takes them to different parts of the country, as in the case of the Road Inspectors, the Board of Health Officers, &c., the additional duty of seeing that new wells are properly protected from surface drainage. It costs very little more to properly protect the well by tamping clay behind the stones when the well is being made, or by using concrete, than to finish it in the unscientific way in which we find this important matter usually performed, and I am sure that it is ignorance rather than any wish to save a few dollars at the risk of health, which explains the unsatisfactory condition of nearly all the wells which I have visited.

If, in each topographical area, we could find a few thoroughly protected wells, of known depths, and of whose history a full record had been kept, we should possess the data which we require, and which we cannot now obtain with any such certainty as would give a sure basis for the illustration of the scheme I have suggested.

It is by so much the more important that new wells should be constructed in such a way as to fulfil these conditions.

On 13th October, 1899, I personally visited forty-three wells, chiefly on farms, in the district between Kinburn and Pakenham, in the county of Lanark. This is an extensive clay region, fairly level, except quite near Pakenham, where the land dips towards the Mississippi river. The Mississippi rises in a series of small lakes, about eighty miles west of Pakenham, in the townships of Abingdon, Barrie and Clarendon, in Addington county. These townships are very thinly settled, and the whole course of the river is through a region but little affected by human habitation. With the exception of the towns of Perth and Almonte, it may be said to be quite as nature left it, and a purer gathering ground could not be wished. This is proved by the fact that a sample of the river water taken at Pakenham gave only two parts of chlorine per million. No doubt, this small content of chlorine is chiefly derived from sewage, for, although the organic matter of sewage may change by oxidation as already explained, the chlorine remains, to tell the tale of past sewage pollution. In the case before us, the amount is too small to give any concern for the purity of the river water. No doubt there are points on the river, (*e.g.* just below the town of Perth) where locally, a higher chlorine figure would be found, pointing to local and serious sewage contamination. But the volume of the river is so large, that by the time the sewage has distributed itself uniformly

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throughout it, the figure 2 per million, for chlorine, has been reached, and the organic impurities have been fully oxidized.

The following numbers were obtained for seven wells in the region referred to, the wells having a depth of less than 10 feet, and being of the kind called surface wells :—

Well.	Depth.	Chlorine per million.	Well.	Depth.	Chlorine per million.
1.....	9 feet.....	4	5.....	8 feet.....	26
2.....	9 ".....	10	6.....	7 ".....	32
3.....	9 ".....	22	7.....	8 ".....	180
4.....	10 ".....	22			

Why are these numbers so much higher than the river water gave? There is but one answer—the wells are dug in soil which is more or less saturated with sewage. Not one of these wells, so far as I could learn, was protected by a clay backing (see Fig. 4) from soakage, and consequently, most of them are contaminated with sewage which has undergone no such amelioration by soil-filtration as would have resulted from proper construction. Not one of them is certainly a safe well, while No. 7 cannot but be a most dangerous supply.

In the following table I have placed the numbers resulting from examination of 21 wells, varying from 10 to 20 feet in depth. These samples were taken on the same day, and from the same region :—

Well.	Depth.	Chlorine per million.	Well.	Depth.	Chlorine per million.
1.....	20 feet.....	4	12.....	17 feet.....	84
2.....	12 ".....	4	13.....	20 ".....	54
3.....	16 ".....	4	14.....	17 ".....	88
4.....	18 ".....	6	15.....	12 ".....	90
5.....	18 ".....	14	16.....	13 ".....	92
6.....	15 ".....	16	17.....	13 ".....	98
7.....	12 ".....	22	18.....	12 ".....	114
8.....	15 ".....	24	19.....	18 ".....	128
9.....	13 ".....	32	20.....	18 ".....	194
10.....	14 ".....	32	21.....	12 ".....	370
11.....	12 ".....	44			

It is quite likely that most of these wells derive the main portion of their supply from the ground-water of the locality, but it is very certain that most of them are contaminated with soakage water. The first four are among the deepest of these wells, and as likely to be true ground-water wells as any, yet their chlorine content is not high, in fact, the very highest chlorine numbers in this list correspond to decidedly shallow wells, whose contamination by sewage is beyond a doubt.

The following six wells are examples of deep wells, and should give pure water ; if properly protected from soakage of surface water. This they are not, however, and I cannot feel sure that the chlorine they contain is not, at least in part, due to sewage.

Deep well.	Depth.	Chlorine.	Deep well.	Depth.	Chlorine.
1.....	25 feet.....	24	4.....	25 feet.....	170
2.....	35 ".....	56	5.....	25 ".....	195
3.....	46 ".....	58 (in rock)	6.....	25 ".....	240

Two wells in this region answer to the type of mineral springs. They contain respectively 3775 and 3700 parts of chlorine per million. It is quite evident that this chlorine has a mineral, and not a sewage, origin, and I mention them to show how marked a distinction exists between such wells, and the ordinary domestic well.

Later in October, I collected, partly in person, and partly by deputy, seventy samples of well waters along the Montreal road, through the villages of St. Joseph,

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Blackburn and Cyrville, and the adjacent country. Of the wells less than ten feet deep, eight contain less than eight parts chlorine per million and thirteen others gave chlorine varying from 16 to 250 parts, six wells yielding more than 100 parts per million. Most of these wells were so evidently unprotected that I was prepared to find them dangerously contaminated, as the result showed them to be.

Of thirty-one wells having a depth between ten and twenty feet, only two gave less than 10 parts of chlorine; fourteen gave more than 100 parts, and five more than 200. There can be no doubt whatever, that most of this chlorine has a sewage origin.

Of deep wells the following is the record:—

Deep well.	Depth.	Chlorine.	Deep well.	Depth.	Chlorine.
1.....	?	2	6.....	22 feet ..	86
2.....	21 feet ..	6	7.....	?.....	110
3.....	26 " ..	26	8.....	27 feet ..	280
4.....	30 " ..	52	9.....	23 " ..	670
5.....	96 " ..	52	10.....	155 " ..	860

It is noteworthy that the increase in chlorine corresponds to an increase in depth, if we omit the numbers six, eight and nine in this list. Number six is in a hotel yard, and the well is not properly protected; number eight is twenty-five years old, has no pump, and shows every sign of neglect in its surroundings, and number nine is eighteen years old, not protected from soakage, and dug in soil which has been used as a garden and otherwise from immemorable time.

I have made, at different times, similar collections of well-water samples near Peterboro, near Hamilton, and at several places nearer Ottawa. The analytical data have a special interest for the neighbourhood in question; but for such a general study as we are now making, it seems scarcely worth while to quote them. They emphasize the point to which I have already alluded, viz.: the difficulty of ascertaining the true chlorine value of normal ground-water. If any considerable number of properly protected wells existed in a given locality, there would be no difficulty about this matter, or at least, the difficulty would be much lessened.

As already pointed out, this work is properly the duty of township and village municipalities. During the eight years which have elapsed since I brought it to the notice of the Provincial Board of Health of Ontario, no attempt has been made by any municipality, so far as I know, to carry out the plan then outlined.

Because I am impressed with the importance of the subject, I have asked and obtained your permission to make some further investigations; and the subjoined report upon inspection of wells in the towns of Oakville, Weston and Richmond Hill, forms a second attempt to demonstrate the usefulness of the method of testing well supplies, which I have just described.

I may explain that I do not consider the subject as one properly belonging to this Department of the Public Service; and it is rather as an object lesson, than with any view to its further prosecution, by the Department of Inland Revenue, that I have recommended the undertaking of the work now reported. The municipalities immediately concerned are the proper agents in the matter. They are best acquainted with the details necessary to give maximum value to the investigation. It will be seen that the information obtainable in a hurried visit to distant towns, is far from complete or satisfactory. The depth of the wells, their age, the frequency with which they are cleaned, their protection, construction and other features; the depth of water which they contain at different seasons of the year; the nature of the strata which they penetrate, and many other details, are either quite unknown, or very imperfectly known to me. It would be a matter of no great expense for each municipality interested to obtain and record this information; and such a record would be of immense value to the chemist in forming his opinion.

The work recorded in the accompanying tables has been done upon 32 wells in each of the towns of Weston and Richmond Hill, and 64 wells in Oakville Ont.

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The information obtainable in regard to the wells was so very limited that I have sought to secure a basis for interpretation of analytical results, by doing a much greater amount of work upon these samples than is contemplated by the plan already described. Thus, in addition to determining the chlorine values, I have determined the alkalinity, and the temporary and permanent hardness. This is done in order to ascertain whether the water supplied by neighbouring wells, of similar depth, is derived from the same ground-water.

The information thus obtained is far from satisfactory. Where a well is walled up with limestone, the hardness of the water will be much affected by this fact, and further influenced by the length of time that the water lies in contact with the stone.

By much the best way to get the information needed for interpreting results of analysis, is to have it at first hand, from the well-digger. The date of sinking, the depth, the nature of the soil, the protection of the well, the extent of flow, the variation of level with the season, frequency of cleaning, &c., these are the important facts needed, and they could easily be ascertained by local endeavour. A stranger visiting the town for a day or two, is fortunate if he secures the water itself, and a chance hint or two regarding the well.

The depth of the well, as given in the tables, is, in most cases mere guess work ; an approximation made by the man employed as a guide.

The time of the year is favorable to the protection of wells from fresh sewage ; so that much would be learned in regard to the safety of these wells, if a comparison could be instituted between their chlorine value as here recorded, and that found in April or May, when the frost is out of the ground.

Such conclusions as I think can safely be reached, are noted in the tables. The number designating each well, enables its location in regard to other wells, to be seen by reference to the accompanying diagram.

The order in which the wells appear in each table is chosen so as to put contiguous wells together, as far as possible. Where a considerable distance is known to separate wells, a line is left blank in the table. It will not do, however, to interpret juxtaposition of numbers in the table, as indicating juxtaposition in the wells. The linear distance between one well and the next, is unknown to me. In some cases it may not exceed 100 feet ; in other cases it may be a quarter of a mile. It is evident that exact knowledge on this point, while easily attainable by the local authorities, would require the expenditure of much time and labour on the part of a visiting inspector.

All other information needed to make the tables useful, is contained in the column headed 'Remarks.'

Finally I would draw attention to the fact that the results contained in these tables cannot be expected to greatly interest others than the residents of Weston, Richmond Hill and Oakville, except in so far as they throw light upon the application of the method of inspection which I have already described.

Even to the municipalities named, they only serve as the beginning of an investigation, which if completed at all, must be completed by themselves. The town of Oakville, probably contains over 500 wells. Thus it will be seen that the sampling of sixty-four, selected almost at random, and examined only once, cannot be regarded as more than a very superficial treatment of the question. I trust that we shall hear further of the matter.

This is not alone a subject of interest to country and village dwellers. Very large numbers of city people spend their summers in the country, and make use of well-water. Every autumn finds them bringing back to town a certain amount of typhoid fever, contracted doubtless, through the use of impure well-water. This is an aspect of the case which may reasonably appeal to city dwellers.

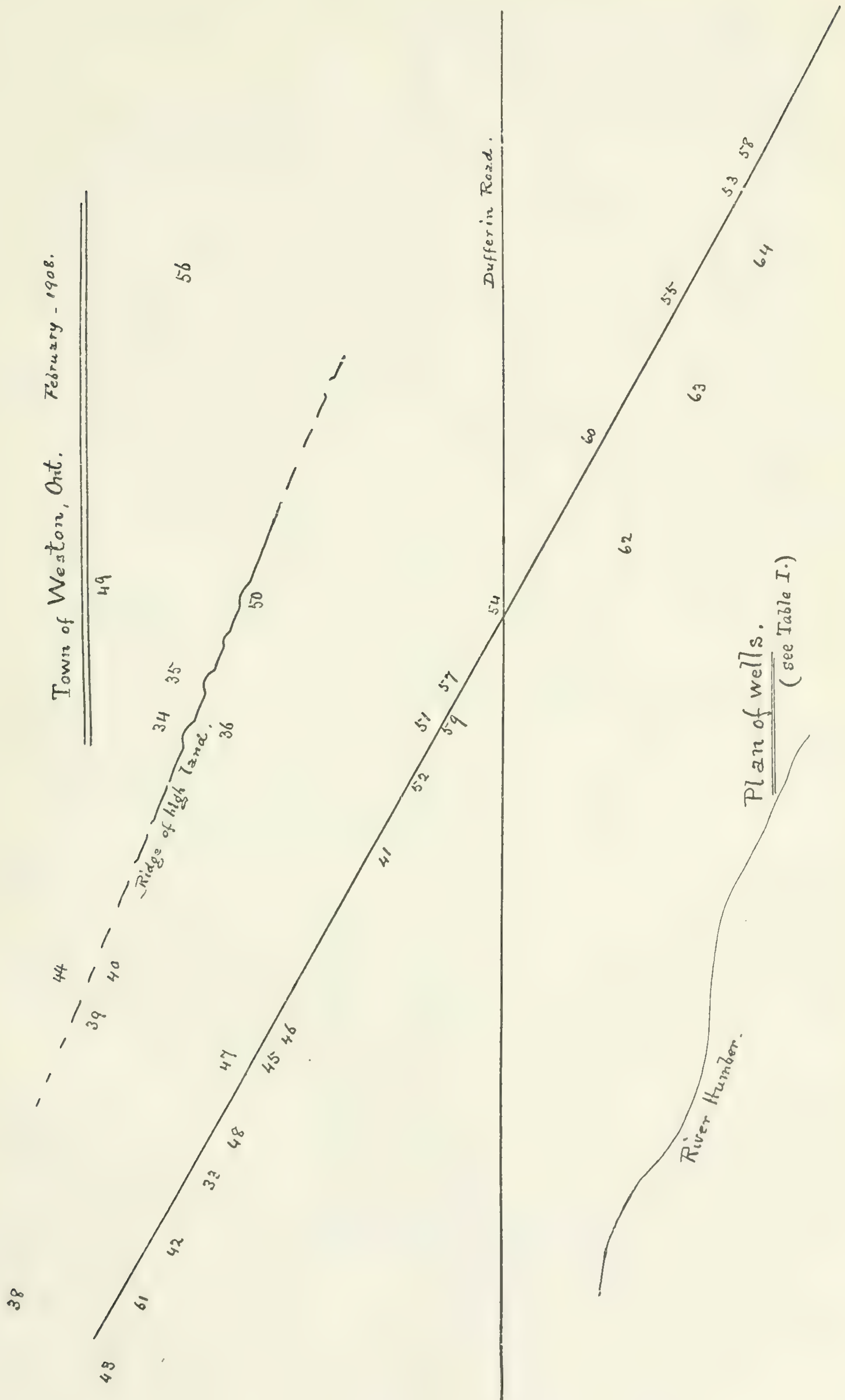
I beg to recommend the publication of this report as Bulletin No. 149.

I have the honour to be, Sir,

Your obedient servant,

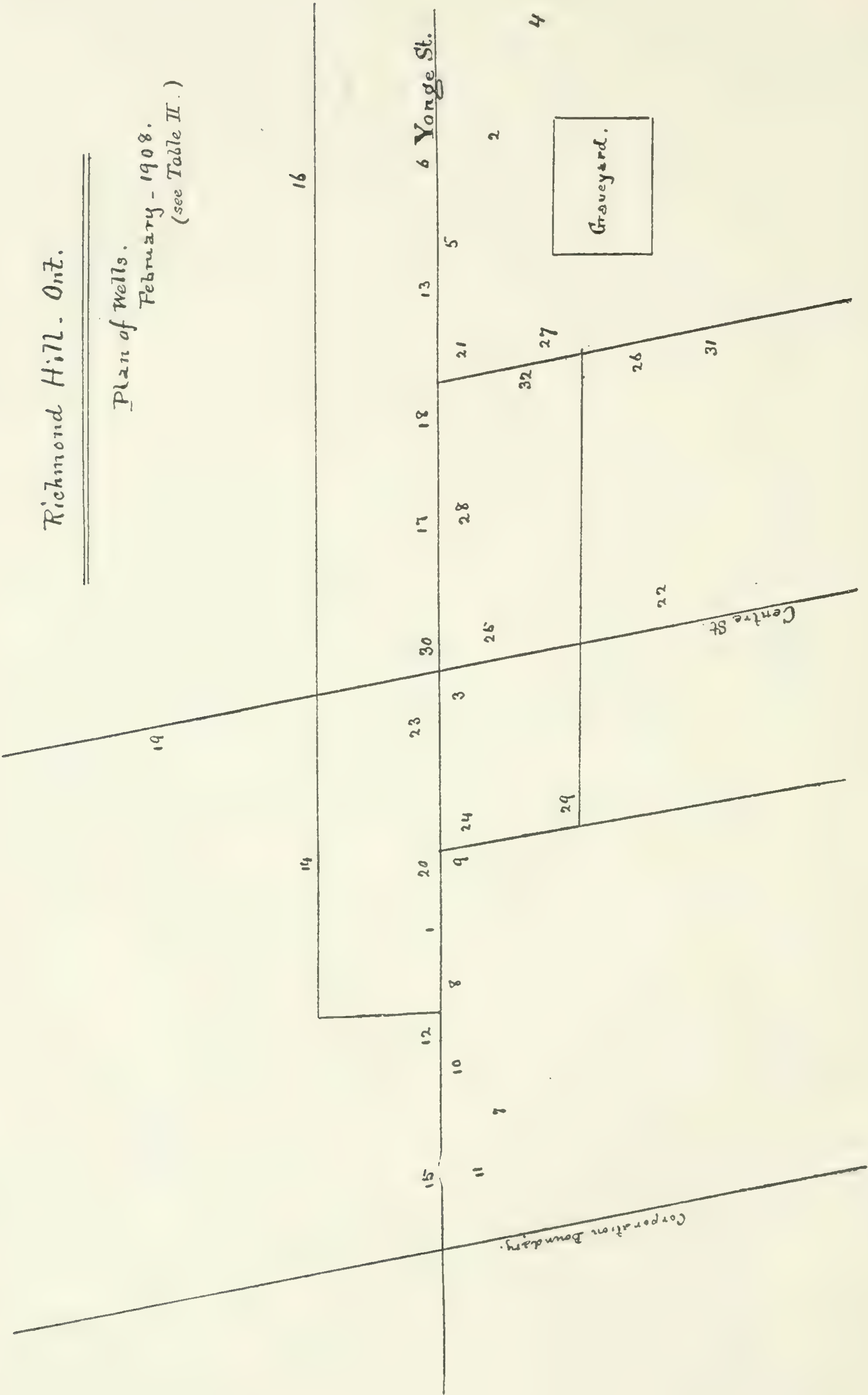
A. MCGILL,
Chief Analyst.

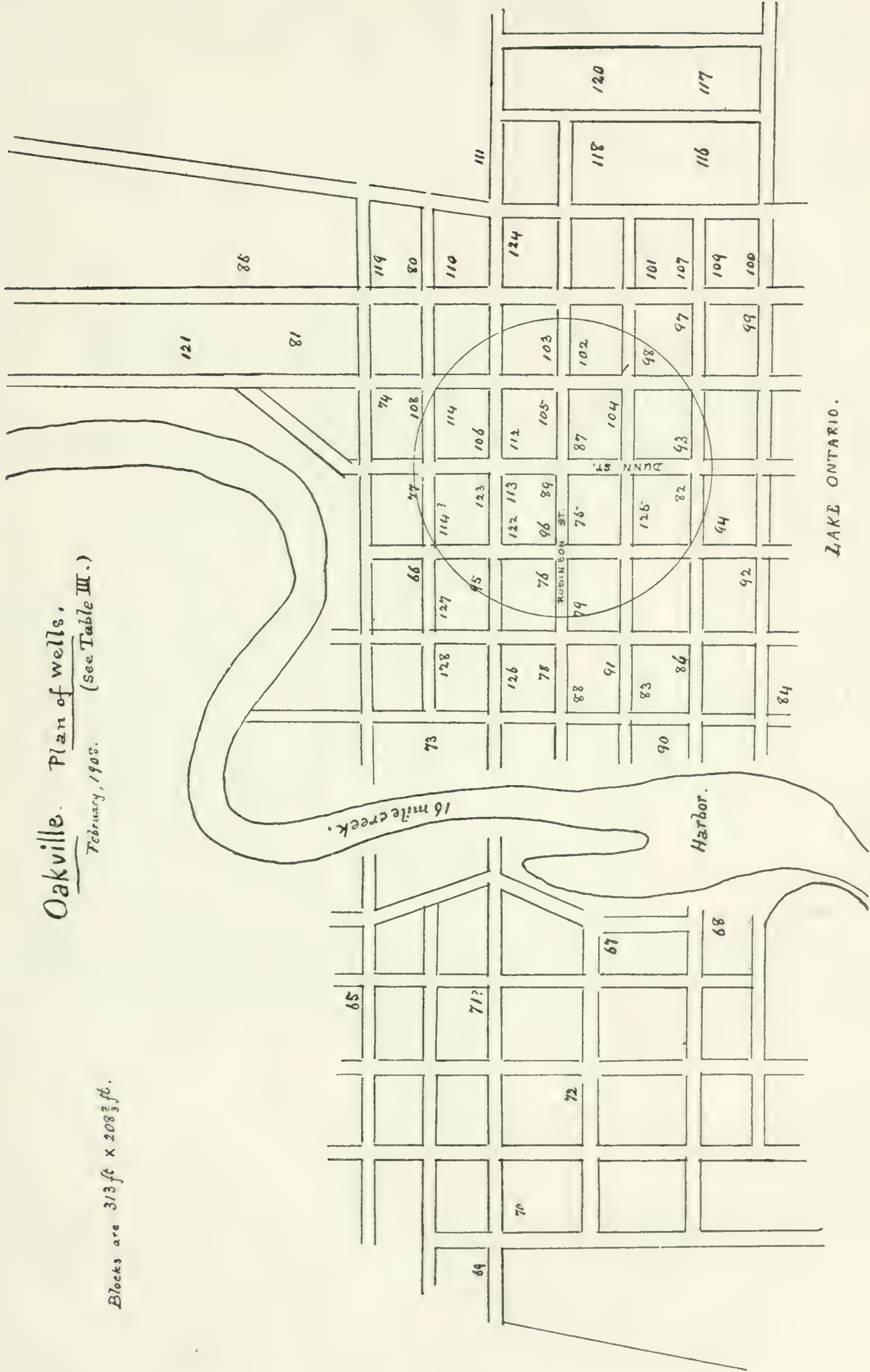
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Richmond Hill. Ont.

Plan of wells.
February - 1908.
(see Table II.)





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TABLE I.—WELL WATERS—TOWN OF WESTON, ONT., FEB., 1908.

Number.	Depth in Feet.	Description.	Chlorine per Million.	Alkalinity.	HARDNESS.			Remarks.
					Total.	Permanent.	Temporary.	
43	22	Old, brick, iron pump.....	24	120	207	84	123	This may be mineral chlorine.
61	?	Brick, wood pump.....	28	112	146	28	118	
42	12	Brick, wood pump, with strainer.....	20	106	157	60	46	
37	?	New stone, iron pump.....	202	129	291	175	116	
33	?	Brick, wood pump.....	40	112	140	22	118	
48	?	Old stone, wood pump.....	162	140	246	118	128	These high chlorides suggest sewage.
45	15	Iron pump.....	62	260	342	73	269	
46	Shallow	Brick, iron pump.....	54	207	302	151	151	
47	14	Brick, wood pump.....	122	109	268	162	106	
41	10	Old well, wood pump.....	34	151	190	34	156	
52	16	Stone, wood pump.....	14	115	123	0	123	Is suspicious.
51	17	Old, brick, wooden pump....	94	168	269	112	157	
57	30	Iron pump, brick.....	392	339	420	89	331	This should be looked into,
59	25	" ".....	56	154	235	90	145	
54	20	Wood pump, brick.....	36	168	241	90	151	The low chlorides in these wells is a proof that the normal ground water in the East end of Weston, does not contain mineral chlorine, except in traces.
60	19	" ".....	42	120	235	140	95	
62	15	" ".....	16	87	64	0	64	
55	10	" ".....	8	88	106	11	95	
63	30	Iron pump, brick.....	18	154	185	28	157	
53	30	Wood pump, brick.....	18	112	151	28	123	Very suspicious.
58	?	" ".....	16	129	146	11	135	
64	20	Iron pump, brick.....	20	106	134	28	106	
38	102	Iron pump, new well.....	18	190	84	23	61	
39	?	Old well, brick.....	46	126	196	56	140	
49	20	Old well, brick.....	106	129	280	179	101	Why are these wells higher in chlor- ine than is No. 34?
44	30	Old, wood pump... ..	76	146	151	28	123	
34	20	Wood pump, brick.....	14	95	140	39	101	
35	?	" ".....	54	109	174	95	79	
36	20	Iron pump, brick	50	109	190	75	115	
49	30	" ".....	34	92	118	50	68	These are isolated wells, and no comparisons are possible.
59	22	Brick, cement, top, iron pump, 13 years in use.....	72	137	213	95	118	
56	20	Iron pump, brick.....	32	160	207	78	129	

NOTE.—Alkalinity, is an expression, in terms of CaO, for the total bases existing as Carbonates. Hardness, is an expression, in terms of CaO, for the total alkaline earth bases (essentially lime and magnesia) present in solution. Hardness is known as ‘permanent’ when these bases are in combination as Sulphates or Chlorides, and as ‘temporary’ when they exist as Carbonates. When the Alkalinity is notably in excess of the temporary hardness, this is due to the presence of Sodium Carbonate in the water.

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TABLE II.—WELL WATERS, TOWN OF RICHMOND HILL, ONT.—FEB. 1908.

Number.	Depth in feet.	Description.	Chlorine per Million.	Alkalinity.	HARDNESS.			Remarks.
					Total.	Permanent.	Temporary.	
15	20	Stoned, wood pump.....	80	123	235	112	123	} The shallow well is higher in chlor- ides. This is suspicious.
11	30	Brick, wood pump.....	34	156	146	17	129	
7	75	Iron pump, wind driven.....	92	207	302	101	201	
10	20	Old well, wood pump.....	46	199	263	67	196	} Water of similar character.
12	20	Iron pump, brick.....	68	207	235	28	207	
8	20	Old well, wood pump.....	148	232	392	208	184	The high permanent hardness is note- worthy also high chlorine. Compare with No. 9.
1	20	Iron pump, stoned	80	224	252	84	168	
20	20	Iron pump, brick.....	56	224	246	22	224	
9	25	Brick, old wood pump	110	168	297	129	168	
24	20	Iron pump, brick.....	60	157	202	45	157	
23	15	Wood pump, cement top, springs from quicksand....	22	162	196	28	168	A 'mineral' water ?
3	38	Brick, wood pump.....	36	151	213	45	168	
30	33	Iron pump, brick, water salty.....	570	356	342	11	331	
25	20	Old well, bricked, wood pump... ..	94	132	280	168	112	
17	25	Brick, iron pump ...	48	216	224	0	224	
28	20	" " ..	46	148	179	28	151	Is this mineral chlorine? Is of sus- picious character.
18	30	Wood pump, brick....	780	216	414	218	196	
21	30	Brick, wood pump.....	52	174	224	50	174	
32	30	Wood pump, bad platform..	178	194	386	185	201	
27	80	Wind mill pump, water from sand.....	164	235	409	234	175	
26	30*	Brick, cleaned 4 mos. ago. .	40	137	168	28	140	} Suggestion of past sewagepollution
31	55	Flowing well.. ..	26	132	129	0	129	
13	30	Stone, wood pump.....	52	168	252	95	157	
5	20	Wood pump, bricked.....	10	150	140	28	112	
6	26	Brick.....	98	160	274	129	145	
2	30	Iron pump.....	32	143	162	22	140	Chlorine is suspiciously high.
4	?	Wood pump.....	22	160	162	0	162	
16	40	.....	136	174	246	123	123
14	20	Brick, wood pump.....	76	179	224	62	162	
19	15	" " ..	48	140	174	45	129	
29	20	Brick new well.....	56	126	123	11	112	Chlorine is high, but may have a mi- neral origin, as the permanent hard- ness suggests.
22	20	35 years old, brick, wood pump.....	132	134	308	168	140	

TABLE III.—WELL WATERS, TOWN OF OAKVILLE, ONT.—FEB., 1908.

Number.	Depth in feet.	Description.	Chlorine per Million.	Alkalinity.	HARDNESS.			Remarks.
					Total.	Permanent.	Temporary.	
77	15	Iron pump, stoned.....	34	123	134	22	112	This group of 22 wells, situated within a square of about 16 blocks, would form an interesting study if they had the same depth, or if their individual depths were accurately known.
114	15	Open well, stoned.....	30	101	129	28	101	
95	16	Iron pump, cement curbing..	60	148	190	50	140	
123	?	Iron pump, stoned.....	530	381	392	50	342	
106	16	Iron pump.....	56	171	241	101	140	
122	12	Pump in kitchen connects both with well and cistern.	98	154	252	140	112	
113	?	Iron pump, stoned.....	86	134	230	118	112	
112	13	Stone, iron pump, sand.....	36	101	151	62	89	
76	15	Open well, stoned, low ground	970	221	347	168	179	
96	?	Iron pump, stoned.....	160	244	302	140	162	
89	15	Open well, stoned.....	74	126	218	112	106	What then is the meaning of the numbers found for No. 76, 96, 102 and 82?
105	38	Stoned, iron pump	20	146	140	0	140	Nos. 105, 103, 79 and 87 show a very low chlorine content. Why so high chlorine in the remaining wells of the group? These questions can only be answered by further examination. But they should be disquieting to the residents of this part of the town.
103	16	Tiled, iron pump.....	24	140	146	6	140	
79	18	Iron pump, stoned.....	10	112	112	11	101	
75	15	"	70	179	230	101	129	
87	14	Open well, stoned.....	16	146	151	14	137	
102	15	No pump, stoned.....	170	157	236	151	135	
104	14	Open well.....	92	151	235	123	112	
125	?	Iron pump, stoned.....	72	154	202	84	118	
82	15	"	148	148	286	146	140	
93	15	"	28	143	174	50	124	
98	12	Stoned, no pump	36	120	168	84	84	The hardness in Nos. 123, 76 and 96; also 102 and 82 implies that these may be fed from a distinct source.
97	?	Iron pump.	300	134	381	246	135	So little is known about the wells of this group, that no certain inference is possible. If Nos. 107 and 109 fix the chlorine of the region, the others should be further examined.
101	?	No pump.....	70	148	202	62	140	
107	?	No pump, stoned.....	18	70	78	6	72	
109	?	Iron pump	16	104	112	0	112	
100	?	"	196	193	392	252	140	
99	15	No pump, stoned.....	54	104	157	73	84	
92	18	Open well, stoned.....	66	224	252	84	101	
94	20	"	40	188	241	84	157	
83	?	Iron pump, stoned.....	73	188	276	112	164	
86	18	"	56	148	190	62	138	
88	?	Iron pump, stoned.....	144	151	314	168	146	Not used for cooking, &c. Why has this well a bad reputation?
91	14	Open well, stoned.....	58	126	185	84	101	
78	14	Open, stoned.....	24	92	101	17	84	
126	?	"	190	231	188	0	188	
66	15	Open well, stoned	58	154	246	112	134	
127	?	Iron pump.....	80	171	213	112	101	
128	20	Iron pump, stoned.....	34	146	78	0	78	
74	?	"	64	146	202	112	90	
108	13	Iron pump, tiled.....	32	87	84	6	78	
80	36	Open well, stoned.	64	140	140	17	123	Said to have "sulphur" smell at times.
119	15	Stoned, iron pump	30	120	118	0	118	
110	14	"	64	179	224	84	140	
118	15	Open well, stoned.....	52	157	185	73	112	
120	20	Iron pump, cement platform, stoned.....	16	126	140	56	84	
116	16	In shed, iron pump.....	96	165	252	50	202	
117	63	Iron pump, Artesian, 53 feet in rock.....	20	140	146	0	146	

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TABLE III—WELL WATERS, TOWN OF OAKVILLE, ONT.—
FEB. 1908.—*Concluded.*

Number.	Depth in feet.	Description.	Chlorine per million.	Alkalinity.	HARDNESS.			Remarks.
					Total.	Permanent.	Temporary.	
124	?	Stoned, iron pump.....	78	123	185	84	101	
65	12	Open well, stoned.....	80	132	263	129	134	
66	15	" "	58	154	246	112	134	
67	15	Stone, wood pump	60	182	238	67	171	
68	16	Stone, iron pump.	16	160	179	28	151	
69	?	Stoned, iron pump, in shed..	248	137	358	210	148	Of doubtful character.
70	?	Stoned, iron pump	178	148	280	168	112	" "
71	?	" "	98	92	252	151	101	
72	15	Open well, stone, cement platform.....	42	115	179	67	112	
73	16	Iron pump, stoned	40	115	146	28	118	
81	30	" "	64	199	286	112	174	
84	13	" "	242	266	498	263	235	Should be further examined.
85	15	Open well, stoned.	12	165	168	11	157	
121	13	" "	56	129	196	73	123	
90	15	Iron pump, stoned	50	165	224	50	174	
111	?	Stoned, Iron pump.....	34	126	157	28	129	
115	?	" "	164	132	286	151	135	" "

NOTE.—Judging by the number of wells in Oakville which shew less than 50 parts of chlorine, there is no apparent reason why any of these wells should contain more than this. The higher numbers are easily explained on the assumption that the gathering ground (the surface soil of the town) is more or less saturated with animal waste. It should be easy to demonstrate the correctness or otherwise of this suspicion.

APPENDIX.

I have been asked to describe apparatus, solutions, etc., needed to carry out the method of testing for Chlorine.

The following are needed :

Apparatus.

1 Burette, 50 cc. graduated in 1-10.....	\$2.00
1 " stand.....	1.00
1 glass funnel (2 inch.).....	0.10
1 " stirrer.....	0.05
2 porcelain dishes (4 inch. diam.)	0.60
(White saucers will do.)	
1 10 cc. pipette.....	0.20
1 50 cc. graduate flask.....	0.20
	<hr/>
	\$4.15

Reagents.

- 1. Distilled water.
- 2. Solution of Nitrate of silver, 4.7887 grammes of the crystals to 1 litre.
Each 1 cc. of this solution corresponds to 1 milligramme of Chlorine, (in chlorides.)
- 3. Chromate of Potash, a 5 per cent. solution.
- 4. Solution of Sodium Chloride, 1.648 grammes per litre.
Each 1 cc. contains 1 milligramme of Chlorine.

The method of working is so simple that it may easily be learnt by any one having an elementary knowledge of chemistry, in a few hours. It is fully described in Sutton's Volumetric Analysis, (published by J. and A. Churchill, London) and in other similar works. Best, however, by personal instruction.

Exceptional samples of water may require preliminary treatment ; but these are so rarely met as to be negligible, or they may be sent to properly qualified analysts for an opinion.

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APPENDIX P.**BULLETIN No. 150—CANNED SALMON**

OTTAWA, March 31, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to submit herewith a report upon the examination of ninety samples of canned salmon, collected in February of this year.

The collection consists of six (6) samples taken in each inspectoral district of the Dominion.

Details as to vendor and packer will be found in the accompanying tables.

All samples were found to be in good condition, and true to name.

I beg to recommend the publication of this report as Bulletin No 150.

I have the honour to be, Sir,
Your obedient servant,

A. MCGILL,
Chief Analyst.

CANNED SALMON.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.			
DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.								
Feb. 18..	Canned Salmon.....	33618	Forristall & Co., Halifax, N.S.	3 tins.	45	B. C. Packers Association, Vancouver, B.C.	Sold as Eagle Brand.....	Good.
" 18..	"	33619	T. J. Brown, Halifax, N.S...	3 "	45	West Coast Packing Co., Newfoundland.	Labeled Solid Red Brand Newfoundland Salmon.	"
" 18..	"	33620	C. E. Choat & Co., Halifax, N.S.	3 "	30	B. C. Packers Association, Vancouver, B.C.	Sold as Nansen Brand	"
" 18..	"	33621	G. A. Cook & Co., Halifax, N.S.	3 "	45	B. C. Canning Co., Victoria, B.C.	Sold as Mounted Police Brand..	"
" 22..	"	33622	Hogg Creig & Co., Pictou, N.S.	3 "	54	Capital City Canning and Packing Co., Victoria, B.C.	Sold as Icele Brand	"
" 25..	"	33623	B. H. Dodge & Co., Kentville, N.S.	3 "	30	Pacific Coast Packing Co., Vancouver, B.C.	Sold as Emblem Brand.	"
DISTRICT OF PRINCE EDWARD ISLAND—T. MOORE, INSPECTOR.								
Feb. 17..	Canned Salmon.....	31230	Sanderson & Co., Charlottetown.	3 cans.	54	British Columbia Packing Ass., Vancouver, B.C.	Peacock Brand, Skeena River Salmon.	Good.
" 17..	"	31231	Geo. Rackham, Charlottetown.	3 "	54	" " " "	(C) Brand British Columbia Keena Fresh River Salmon, Skeena Packing Co.	"
" 18..	"	31232	R. T. Holman, Ltd., Summerside.	3 "	39	Anglo-British ColumbiaPacking Co., Ltd., Vancouver, B.C.	Tulip Brand Fresh B.C. Pink Salmon.	"
" 18..	"	31233	Brace & McKay, Summerside.	3 "	48	Columbia Packing Co., J. H. Todd & Sons, Agents, Vancouver, B.C.	Columbia Brand Fresh Salmon.....	"
" 18..	"	31234	A. Bowness, Kensington....	3 "	54	W. A. Anderson, Vancouver, B.C.	Otter Brand Choice B. C. Red Spring Salmon.	"
" 8..	"	31235	D. McKenzie, Kensington...	3 "	54	Anglo-British ColumbiaPacking Co., Ltd., Vancouver, B.C.	Red Clover Brand Red Salmon, Spring Packed.	"

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.

Feb. 14.	Canned Salmon.....	29661	Baird & Peters, Ward St., St. John, N.B.	3 tins.	42	Anglo-British Packing Co., Vancouver, B.C.	Red Clover Brand.....	Good.
" 20..	"	29662	Sussex Mercantile Co. Ltd., Sussex, N.B.	3 "	50	British Columbia Packers Assn. Vancouver, B.C.	Labeled Red Salmon, Red Poppy Brand Salmon, packed by B. C. P. Assn. Vancouver, B.C.	"
" 21..	"	29663	W. G. Bell, Main, St., Moncton, N.B.	3 "	45	Packed for Baird & Peters, St. John, N.B.	Labeled Best Skeena River Salmon	"
" 24..	"	29664	A. & R. Loggie, Main St., Dalhousie, N.B.	3 "	45	Federation Canning Co., Ltd., Victoria, B.C.	Red brand Choice Outlet Salmon. Labeled B. C. Salmon Morningtide Salmon, Federation Brand Salmon Canning Co., Ltd., Trade Mark hands clasped.	"
" 24..	"	29665	John M. McLeod, Main St., Dalhousie, N.B.	3 "	51	Whitehead & Turner, Quebec City, P.Q.	Labeled Fraser River Rock Eye Salmon, Clover Leaf Salmon, packed at Lulu Island, B.C., Pacific Selling Co., New York.	"
" 25..	"	29666	John Dalton, Pleasant St., Newcastle, N.B.	3 "	45	British Columbia Packers Assn., Vancouver, B.C.	Labeled Snowshoe Brand Choice Salmon, Fresh Salmon Registered, packed by the British Columbia Packers, Vancouver, B.C.	"

DISTRICT OF QUEBEC—E. BELAND, INSPECTOR.

Feb. 10..	Salmon, Clover Leaf.	26380	T. R. Lesperance, Montmagny.	3 boxes.	60	Whitehead & Turner, Quebec	.....	Good.
" 10..	" Stadacona.	26381	" "	3 "	45	" "	.....	"
" 10..	" British.....	26382	Paquette & Cie, Montmagny.	3 "	45	Turcotte & Frère & Cie, Quebec.	.....	"
" 10..	" Carnation ..	26383	Alphonse Boutin, Montmagny.	3 "	36	Honoré Blouin, Quebec.....	.....	"
" 10..	" Eagle Brand	26384	" "	3 "	45	" "	.....	"
" 10..	" Lily Brand.	26385	Alexander Fournier, Montmagny.	3 "	45	Langlois & Paradis, Quebec .	.....	"

DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR.

Feb. 13..	Canned Salmon.....	27962	D. Hébert, Drummondville.	3 boxes.	30	Vancouver Packing Co., Vancouver, B.C.	Other brand, Saumon Frais, 1 lb.....	Good.
" 13..	"	27963	Guerlin & Archambault, Actonville.	3 "	36	J. H. Todd & Sons, Agents, Victoria, B.C.	Fresh British Columbia Salmon. Sun-flour Brand.	"
" 18..	"	27964	May & Houlahan, Sherbrooke	3 "	45	The British Columbia Packers Assn., Vancouver, B.C.	Eagle Brand.....	"

CANNED SALMON.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Remarks and opinion of the Chief Analyst.
				Quantity.	Cents.			
DISTRICT OF ST. HYACINTHE—J. C. ROULEAU, INSPECTOR—Continued.								
1908.								
Feb. 19.	Canned Salmon	27965	S. Bachand & Fils, Cook.	3 boxes.	36	Excelsior Packing Co., Lad- ners Landing, B.C.	Excelsior Brand	Good.
" 20.	"	27966	Louis Roberge, Thetford Mines.	3 "	54	The British Columbia Packers Assn., Vancouver, B.C.	Red Poppy Brand, Red Salmon Choice Pack.	"
" 21.	"	27967	R. O. Brodeur, St. Hyacinthe	3 "	54	Anglo-British Columbia Pack- ing Co., Ltd., London and British Columbia.	Lynx Brand	"
DISTRICT OF MONTREAL—J. J. COSTIGAN, INSPECTOR.								
Feb. 10.	Canned Salmon	32589	O. Decari, 1617 Notre Dame E., Montreal.	3 cans.	30	Vance Cannery. Draney.	Robert	Labeled British Columbia Salmon, packed at Cannery by Robt. Draney. Trade mark, P.P.P. in circle with wording, Packer of Prime Pinks.
" 10.	"	32590	" "	3 "	45	Skeena Packing Co.		Labeled British Columbia Salmon, Skeena Packing Co. Trade mark, (' in diamond.
" 11.	"	32591	M. Cherrin, 873 St. Lawrence B., Montreal.	3 "	54	Richmond Canning Co., J.H. Todd & Sons owners, Vic- toria, B.C.	Horse Shoe Brand. Richmond Can- ning Co., J.H. Todd & Sons owners, Victoria, B.C.	"
" 11.	"	32592	" "	3 "	45	Evans, Coleman & Evans, Vancouver, B.C.	Autumn Leaf Brand, Evans, Coleman & Evans, Vancouver, B.C.	"
" 11.	"	32593	G. Pilon, 25 Ontario East, Montreal.	3 "	30	The British Columbia Packers Assn., Vancouver, B.C.	Dominion Brand British Colum- bia salmon, packed by the British Colum- bia Packers Assn., Vancouver, B.C.	"
" 11.	"	32594	" "	3 "	36	Anglo-British Columbia Pack- ing Co., Ltd., Vancouver, B.C.	Tulip Brand, British Columbia, Salmon PINK, packed by the Anglo British Columbia Packing Co., Ltd., Van- couver, B.C.	"

DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.

1908.

Feb. 12..	Canned Salmon.	34138	C. B. McLean, Ottawa.....	3 tins	45	Major & Co., Ottawa.....	Labeled B. C. Salmon, Evans, Coleman & Evans, Vancouver, B.C. Autumn Leaf Brand.	Good.
" 13..	"	34139	Forde Bros., Bank St., Ottawa.	3 "	45	Anglo British Columbia Packing Co., Ltd., London and B.C.	Labeled Corn Flower Brand Fresh Salmon, with words Bachelor's Button, packed by the Anglo B.C. Packing Co., London and B.C.	"
" 13..	"	34140	Wall & Co., Ottawa.....	3 "	50	J. H. Todd & Sons, agents, Victoria, B.C.	Tins labeled Tiger Brand Salmon, Tiger Brand registered trade mark.	"
" 15..	"	34141	F. A. Scott & Sons, Bank St., Ottawa.	3 "	60	H. N. Bate & Sons, Ottawa.	Labeled Fraser River Sock Eye, packed at Lulu Island, B. C., Clover Leaf Salmon Pacific Selling Co., N.Y.	"
" 18..	"	34142	W. L. Belton & Co., Almonte	3 "	50	F. J. Castle & Co., Ottawa..	Victoria Cross Brand, only choicest Red Sock Eye Salmon, Vancouver Packing Co., Vancouver, B.C.	"
" 19..	"	34143	W. J. Creighton, Kemptville	3 "	60	Not known.....	Shamrock Brand Salmon, Red Sock Eye, Evans, Coleman & Evans, Vancouver, B.C., sale agents. Guaranteed the finest Red Sock Eye Salmon.	"

DISTRICT OF KINGSTON—J. HOGAN, INSPECTOR.

Feb. 11..	Canned Salmon.	33084	J. Kelly, Princess St., Kingston.	3 tins	60	Lulu Island, B.C.....	.....	Good.
" 12..	"	33085	A. Fount, Walton St., Port Hope.	3 "	54	B. C. Pack. Assoc.....	.....	"
" 13..	"	33086	W. J. Routly, Charlotte St., Peterboro.	3 "	45	Corby, New York.....	Target Brand	"
" 13..	"	33087	" "	3 "	54	" .....	.....	"
" 13..	"	33088	W. H. Hamilton, Simcoe St., Peterboro.	3 "	54	.....	Clover Leaf Brand.	"
" 13..	"	33089	J. Bell, Hunter St., Peterboro	3 "	54	.....	Sailor Boy Brand	"

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

Feb. 24..	Canned Salmon.	35044	H. P. Boyd, Hamilton	3 cans	54	British Columbia Packers Assoc., Vancouver, B.C.	Clover Leaf Brand.....	Good.
" 27..	"	35045	E. Gander, St. Catharines...	3 "	54	" "	Maple Leaf Brand	"
" 28..	"	35046	W. H. Martin, Niagara Falls South,	3 "	45	" "	Golden Net Brand... ..	"

CANNED SALMON.

Date of Collection.	Nature of Sample.	N. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer of Furnisher as given by Vendor.	Inspector's Report.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.			
DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR—Continued.								
1908.								
Feb. 29..	Canned Salmon.....	35047	J. H. Marshall, Niagara Falls	3 cans	45	British Columbia Packers Assoc., Vancouver, B.C.	Labeled Mermaid Brand, Lucas steel and Bristol.	Good.
Mar. 3..	".....	35048	J. Gray & Co., Toronto.....	3 "	45	" "	Labeled B. C. Salmon, Arbutus Brand	"
" 3..	".....	35049	John Hickman, Toronto.....	3 "	54	Clayoquite Sound Canning Co., Ltd.	Labeled B. C. Salmon, Ocean Brand.	
DISTRICT OF LONDON—T. KIDD, INSPECTOR.								
Feb. 11..	Canned Salmon.....	30463	J. J. McEwen, grocer merch- ant.	3 cans..	30	Elliot Mar & Co., London, Ont.	.....	Good.
" 11..	".....	30465	P. J. Dean, Goderich.....	3 " ..	45	" "	.....	"
" 13..	".....	30468	M. H. Kelloran, Stratford...	3 " ..	38	Anglo British American Co., Vancouver, B.C.	Branded Pink Salmon.....	"
" 13..	".....	30469	Barnsdale Trading Co. Tri- angle Brand Trading Co.	3 " ..	45	Windsor Canning Co., (Geo. Watts & Co.), Brantford.	Marked Skeena River Salmon.....	"
" 21..	".....	30476	Harris Wiltsie, Clinton, Ont.	3 " ..	45	Edward Adams & Co., Lon- don.	B. C. Packing Co.....	"
" 25..	".....	30479	J. D. Smith & Co., St. Mary's	3 " ..	38	Elliot Mar & Co., London, Ont.	Cascald Brand.....	"
DISTRICT OF WINDSOR—J. TALBOT, INSPECTOR.								
Feb. 18..	Canned Salmon.....	34506	W. J. Cherney.....	3 tins...	54	A. M. Smith & Co., London.	.....	Good.
" 18..	".....	34507	".....	3 " ...	30	Pacific Coast Packing Co....	.....
" 18..	".....	34508	Frank Hutton....	3 " ...	38	British Columbia Packing Association.	.....

"	20..	"	34514	R. A. Ross, London	3	"	30	B.C. Packers Ass., Vancouver.	"
"	20..	"	34515	R. J. Wood, London	3	"	45	Evans Coleman & Evans, Vancouver.	"
"	20..	"	34516	Cullis & Fleming, London	3	"	60	B.C. Packers Ass., Vancouver.	"

DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.

Feb.	20..	Canned Salmon	25882	Percival McKnight, Killarney, Man.	3	tins.	45	Jobin Marrin & Co., Winnipeg, Man.	Tiger Brand	Good.
"	20..	"	25883	"	3	"	50	Federation Brand Salmon Cannery Co., Ltd., Victoria, B.C.	Federation Brand	"
"	20..	"	25884	"	3	"	50	Pacific Selling Co., N.Y.	Packed at Princess Royal Island, B.C., Arrow Brand.	"
"	24..	"	25885	Cairns Naylor Co., Glenboro, Man.	3	"	60	Campbell Bros., Winnipeg, Man.	Royal Shield Brand, Packed expressly for Campbell Bros. Wilson, vendor, said, he did not think the article was pure.	"
"	24..	"	25886	"	3	"	55	R. Draney, Namee Cannery, B.C., Fitzhugh Sound.	King Edward Brand	"
"	24..	"	25887	"	3	"	45	J. H. Todd & Sons, Victoria, B.C.	Royal Crown Brand	"

DISTRICT OF CALGARY—R. W. FLETCHER, INSPECTOR.

Feb.	28..	Canned Salmon	28913	H. W. Keland, Medicine Hat	3	cans	60	Anglo British Columbia Packing Co., Ltd., B.C.	Good.
"	29..	"	28914	The Bently Co., Lethbridge	3	"	60	W. H. Malkin Co., Vancouver, B.C.	"
March	2..	"	28915	T. Lebel & Co., Pincher Creek	3	"	40	Caledonia Packing Co., Fraser River, B.C.	"
"	5..	"	28916	R. MacKenzie & Co., Edmonton	3	"	45	J. H. Todd & Son, Victoria, B.C.	"
"	5..	"	28917	Hudson Bay Co., Edmonton	3	"	50	British Columbia Packers Assn., Vancouver, B.C.	"
"	5..	"	28918	The Acme Co., Edmonton	3	"	50	W. H. Malkin Co., Vancouver, B.C.	"

CANNED SALMON.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by Vendor.	Inspector's Report.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.			

DISTRICT OF VANCOUVER—J. F. POWER, INSPECTOR.

Feb. 18..	Salmon	34232	Webster Bro., Vancouver, B.C.	3 lbs....	40	Wallace Bros., Claxton, B.C.	.....	Good.
" 18..	"	34233	W.H. Walsh, Vancouver, B.C.	3 " ..	30	Nawichy Canning Co.....	Heron Brand.....	"
" 18..	"	34234	S. T. McCready, Vancouver, B.C.	3 " ..	45	B.C. Packers Association. .	Red Poppy Brand.....	"
" 18..	"	34235	Dominion Grocery Co., Van- couver, B.C.	3 " ..	40	Evans Coleman & Evans	Carnation Brand.....	"
" 18..	"	34236	W. H. Moore, Vancouver, B.C.	3 " ..	40	Vancouver Packing Co	Victoria Brand.....	"
" 18..	"	34237	H. Albert, Vancouver, B.C.	3 " ..	40	Federation Canning Co., Victoria, B.C.	Unity Brand.....	"

DISTRICT OF VICTORIA—D. D. SULLIVAN, INSPECTOR.

Feb. 20..	Canned Salmon.....	34852	Saunders Grocery Co., Ltd., Victoria, B.C.	3 tins...	50	British Columbia Packers Assn., Vancouver, B.C.	.....	Good.
" 20..	"	34853	" ..	3 " ...	45	Ward Anderson & Co., Vict- oria & Vancouver, B.C.	.....	"
" 20..	"	34854	" ..	3 " ...	50	J. H. Todd & Sons, Victoria, B.C.	.....	"
" 21..	"	34855	West End Grocery Co., Ltd., Victoria, B.C.	3 " ...	40	Nuwichy Canning Co. of B.C.	.....	"
" 21..	"	34856	Fred Carne, Victoria, B.C.	3 " ...	50	Wilson Bros., Victoria, B.C.	.....	"
" 22..	"	34857	Dixi H. Ross & Co., Ltd., Victoria, B.C.	3 " ...	50	W. H. Malkin & Co., Van- couver, B.C.	.....	"